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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

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The Maryland Horticultural Exhibition.

September 9th, 10th and 11th.

We trust our readers will not forget that the first attempt of our Society to hold an annual exhibition will take place on the 9th, 10th and 11th of September, of the present month; and that to endeavor to make it worthy of the State is the duty of every Horticulturist.

The Horticulturists of other States are watching our course with interest, aiding us by good words of encouragement whenever the opportunity offers. As one of them recently in our midst told us, the refinement of a community may be measured by the condition of its Horticulture. Maryland has a double interest in a Horticultural Society. Its climate and soil are so well adapted to fruits and vegetables, that it might easily become the commercial garden of the Union, while the taste and culture of Baltimore and other thriving cities of the State are equal to the best efforts in the higher branches of the art.

It is a thankless business to start a society of this kind. No one but those who have tried it know the efforts, the time, the money which must be spent in organizing it for a successful action. But this is not all; after all has been done, there remains the suspicion that this one or that one is working for self interest, or that this one or that one could or would have done a great deal better. He or they who take hold of these things have to make up their minds to endure all for the good of the cause. All the officers expect in these new organizations is that the horticultural public will sustain them in their efforts to do something; and this they can do by their presence at the exhibitions or by contributions of articles for competition, or the adornment of the hall. Many persons come to the exhibitions and seeing articles remark that they could have brought articles quite as good. We trust every one, in any part of the State that has anything likely to interest will send it on.

Boston, Philadelphia and Cincinnati, are proud

of their Horticultural Societies, and we feel that this Fall Exhibition will inaugurate a like feeling in our State. As the institution takes root, better men and better machinery perhaps may be found to carry it on—this is not for us to say. The only thing certain is, that Baltimore and the State at large is bound to have a Society of which it may feel proud, and we intend to second this feeling by every means in our power. Whoever may manage the affairs will have our cordial support, till better ones are found, and we feel that this is the spirit that will actuate all our Horticulturists in the coming display.

THE POTATO BEETLE.

So far as we can see, the people of our State have treated the Potato Beetle with silent contempt.—In the vicinity of our city certainly no efforts have been made of any account to gather up or destroy it. Indeed, if what the Entomologists tell us be true, measures for retail destruction amount to very little, and we may as well wait till we can work at them in a wholesale way. They tell us that a single pair will, in a few weeks, produce twelve hundred young, and that these if left alone, and not one should meet with any accident, would, as they have three broods a year, give *twelve millions* in one single season! Still there are innumerable enemies at work to keep them down. Over a dozen other kinds of insects look on the potato beetle as a nice after dinner luxury, many indeed taking them in greedily for the first course.

The common lady bug is said to be one of the best of these potato beetle feeders. It may be that with all these friends at the work, it is worth a man's while to go at the work also. At least so thought the writer of this. His crop is not of much consequence, it is true, his forte being more in the garden than in the farm. Still his little half acre was worth something to him, and though all his neighbors "let the wretched bugs go," he determined to fight to the death. When the rascals first appeared he had a boy go over and gather them.

A few score of larvæ were all that could be found, and it was hoped that all danger was passed, but early in August there was another tale to tell. The boy was put to work again, and in half a day had gone over the whole lot, and had a *peck* of the nasty things. We are inclined to think that in spite of their tremendous increase, as reported by the bug men, hand picking goes a good way towards saving one's crop, and does not cost as much as one might think before trying it.

DOGS AND THEIR COST.

Now is the time, when the public sentiment is ripe for a war on the worthless canines, and the public sensibilities are shocked at the numerous distressing deaths over the country from *hydrophobia*, that our people, our farmers and land proprietors especially should exert their legal defences of their property. The Dog Laws of the State are, and will perhaps continue to be ineffectual and but of little value in defending the citizens and the flocks from these life destroying, useless animals, while law-makers pander to what they think is popular will. Men who are disposed to protect their sheep, or who have regard for human life, must therefore fall back on the laws of self-defence, and slay every dog found trespassing on their enclosures, whether in mischief or not. Continue the war of extermination until every owner of a really valuable dog will feel the necessity of keeping his animal at home, or securely muzzled. Every right thinking man should act upon the advice of the great and venerable *N. R. Smith*, rightly styled, "*Emperor*" of the American Medical Profession, who lately writes, "There is another preventive expedient that strikes still deeper at the root of the evil: *Kill every son of a—dog in the State of Maryland.*" Such are our sentiments; we think *one valuable human life is of more service to the State than all the dogs in it*. If dogs are of use and such pets, why should their owners shirk from paying taxes upon their value as estimated by the owners, when the widow and her orphans pay taxes on the cows and other domestic stock that yield them their sustenance.—If dogs are a luxury why should they be free from taxation and other objects of luxurious, so called refinement of the age, be taxed high?

The Courts recognize dogs as property, and no longer as beasts "*feræ natura*," consequently, if *property*, why should all other things under heaven, (except the air) that can be tortured into what is designated as property be taxed, by our Legislators, to pay lavish expenditures, and these dangerous pets of the wealthy, as well as of the meanest vagabond, be allowed exemption from taxation and all restraint of liberty?

Your laws restrain the boys from indulging in what to them is the height of pleasure,—firing off harmless explosives on a grand holliday occasion, once intended to animate the youthful minds with patriotic emotions,—because possible harm may result, yet the dog that may be *rabid* and the *sheep-killer* are allowed to roam by night or day and if killed or wounded, the owner can go into the courts for heavy damages against the party who may even swear he did it in self defense. Such a decision we personally know of being made in this State.

If there were fewer dogs and those kept under stringent rules of law, how many bickerings and open ruptures between neighbors and their families would be saved—and how much secret ill-will in a neighborhood would be prevented.

As a matter of *economy*, the dogs are nuisances, because the continual drains on the resources of the people without any return, while what they consume in food material, would, if diverted to useful channels, raise pork and mutton enough to support all the indigent in the land. We commend the following extract from a cotemporary, to the thoughtful consideration of every land owner and every man who has at heart the interest and welfare of his fellow man.

The legislator and the political economist should study this theory and give proper attention to these facts as to the *cost* of this class of domestic animals which has become a great and increasing evil that demands legislative action and the co-operation of individual efforts for its suppression.

The *St. Louis Globe* has been making some calculations from recent statistics on this question, and sums up in reference to the State of Missouri as follows:

"Our 400,000 dogs furnish one of the most important economic considerations now affecting the State. In the first place they militate against the mutton crop annually to the extent of at least \$5,000,000; secondly, they cost at an average of 25 cts a week each, \$6,500,000—enough to run all our common schools and leave a large surplus; thirdly, they slay annually, through hydrophobia, at least 120 persons, which, at \$5,000 each—the average price paid by railroads for the very poorest of brakemen—amounts to the further sum of \$600,000. Here is a direct expenditure of nearly \$7,750,000 for dogs, not to mention the fines, costs, and more remote sentimental damages resulting from lawsuits about dog fights and severance of friendship between the owners of the combative curs.—Capitalized, our dogs represent a waste of \$80,000,000, and invested at compound interest their worthlessness would pay off the national debt before 1900."

Agricultural Calendar.

FARM WORK FOR SEPTEMBER.

September, the month requiring hard work—every energy of the industrious farmer, including brain-work, if he looks for a return at present and for future support, is now exacted. The crops of the year are to be gathered and the seeds sown for crops of the coming year, or preparation for their being sown next month. This is English harvest-time, and a noted month for many farming operations to be accomplished both in America as well as in Europe. Certain duties *must* be performed this month by the cultivator of the soil if he be wise and provident in his efforts to make agriculture profitable. It is these duties that we desire to name and respectfully suggest that they be promptly and energetically attended to, by those for whose benefit they are intended.

CORN.

Cut off the corn and put in small shocks, as soon as it is fit. Corn is fit to be cut, whenever the grain has become hard; in a word, past the roasting ear stage. Cut early and the grain is more plump and weighty, while the fodder is infinitely superior to that left to dry and be injured by the winds and rains. Secure, if possible, the corn crop prior to the Equinox.

It is a good plan to stack it around a standing stalk and tie the shock near the top. It will then not be likely to blow over. Persons are apt to save some labor at the often times loss of grain, by making the shocks too large.

From all the information we can gain the corn crop of Virginia and Maryland will be large. In portions of the latter State, the growth has been very heavy. It has had no formidable enemies and the season has been favorable. Owing to the storms, droughts, grass hoppers and other casualties this great crop of the West will be a failure in some sections, and the aggregate amount produced will probably be much lessened, so that the market is not likely to be overstocked, hence the farmer may expect to receive a fair price for his crop. The European demand for this grain is rapidly on the increase, this being largely owing to the increased facilities afforded in storage and shipment, by our Baltimore Elevators.

RYE.

Sow rye as early as possible among the standing corn, or as soon as it is cut off. This valuable crop is too much neglected in its culture. It will pay after corn better than wheat. It readily responds to clean, good culture and manuring suitable to its

wants. The constituent elements of the straw and grain of rye, chemical analysis has shown to be chiefly lime, potash, soda and silica. Any fertilizers containing these ingredients in sufficient quantities, would be suitable for rye. Lime, ashes, or bone meal, salt and plaster, are each good for increasing the product of this crop. One or all of these should be applied to it, if a large product is to be looked for.

WHEAT.

We do not advise sowing this important grain crop this month. But the ground should be prepared for it, so that when the proper time arrives the work may progress rapidly. The field intended for fallow-wheat ought to be plowed early this month, and kept clean by frequent harrowing. It should have been closely grazed before being broken up, for it is not well to plow under a heavy growth of grass or weeds, for the wheat, unless it be so early in the season that it will be thoroughly decomposed, and become mixed with the soil, by cross-plowing and other cultivation. Next month we shall speak more about the cultivation of this great staple product. Clean, good seed is of the first moment in regard to wheat, therefore we suggest to our friends to secure *at once* their seed-wheat. Do not put it off until the last moment, when perhaps such seed as they would prefer is not to be had.

DRAIN ALL THE WET LANDS.

It is unnecessary to enumerate the wonderful advantages of thorough draining. We suggest it as an indispensable requisite to obtain large crops. Lime, bones and all the artificial manures are thrown completely away when used on wet lands. Simply the cutting of ditches is not *draining*, hence we would advise our readers whose lands require draining to inform themselves upon the principles of such work by reading treatises upon the science, for that it has become. Such knowledge would save expense and sometimes the entire loss, for how often do we see expensive ditches cut where they are of no use, and the land not at all reclaimed.—A little knowledge of the theory and practice of ditching would prevent these vexatious failures.—There are not one in a hundred of the white and black men who call themselves “ditchers,” that know anything about it, and it is poor economy to employ such, unless they are directed by some one who is skilled in the business.

POTATOES.

Keep the potatoe ground free from weeds, and send to market the sweet potatoes as fast as you dig them, as they are difficult to keep in warm weather.

MEADOWS.

Go over the meadows, destroy the briars and

bushes, clean the fence corners, clean out the open ditches, and see that the blind ones run freely or are not stopt up. Give the meadow a dressing of ashes (5 bushels per acre) if to be had, or 5 bushels of fine ground bones, with 3 bushels of salt to one of plaster well mixed. When the after-math gets well up, it will not hurt to pasture it with light stock, particularly sheep, as they are great gleaners and will keep down the sprouts of bushes and briars, and eat also the coarser weeds before they get to seed. Never allow a hog to run on a meadow or on young clover.

SOWING GRASS SEED.

Permanent meadows have been of late years much dispensed with, and the fields in rotation been substituted, to furnish hay. We think it a better system. The tobacco or corn ground is better prepared for the grain, so that a good set of grass for hay may be secured.

Timothy, and all the grasses can be sown this month among the standing corn, or with rye. If the clover fails it can be re-sown next Spring.—The other grasses are likely to take better in the fall than when sown in the spring. If a meadow is intended to be sown for hay, the land ought to be fertile, and have an abundance of lime and potash in the soil, or supplied. The ground well pulverized and light, sow 1 peck or more of timothy seed and roll. If mixed grasses are preferred, we should sow orchard, clover and Italian rye grass, as they mature nearly at same time. Timothy should be by itself, in a meadow.

In sowing grass seeds for pasture we strongly recommend the sowing of more seeds per acre than is the present practice with farmers. The grass seeds are so sparingly used that weeds spring up and choke them. It has been supported by reasonable arguments from intelligent observers that weeds exhaust the land more than useful grasses, while the latter are meat producing, and the meat while being produced, returns to the soil as much or more than its production cost. A grass and hay farm must be necessarily a profitable institution, if the amount of stock kept be well and wisely adjusted to the size and the capabilities of the same. We know no more profitable investment than that of a well ordered and well managed dairy farm near a good sized city. The butter, the milk, the hay and the extra vegetables, &c., beside the annually increasing productiveness and consequent increased value of the land would return a large interest on the investment.

TOBACCO.

We cannot impress too strongly our oft repeated opinion that our planters lose a great deal by not

topping their tobacco plants before the blossom appears. They waste time in saving "ground leaves," which do not pay expenses. *Top low*, and leave 14 leaves on a stalk as a general rule, if quality and weight per acre is to be secured—keep the succors down, never allow them to become three inches long. They deprive the stem from furnishing the quantity of nutriment to the leaf which it requires for full development. See that the worms are *all* destroyed, let it cost what it will to hire help. A worm eaten crop in those days is not worth sending to market. The *Connecticut* planter will at all hazards keep his tobacco free from worms, and hence his high profits. The estimate is an annual outlay of \$15 per acre for the destruction of the worms. Great care should be taken in the cutting, spearing, or other methods of putting it in the house. Much attention should be given to the regulation of the distances between the sticks and the plants on the sticks, as it is hung up in the house. Tobacco houses ought to be tight, and furnished with close fitting window doors, so as to furnish ample ventilation in good weather, and when necessary exclude all dampness or rain. Neatness and good management of this crop is highly important now, if the planter expects to be remunerated for his toil.

FENCES.

See that the fences are in order, especially where they are intended to protect crops. It is surprising how much labor is saved by a close observer of of these necessary evils. One rotten or weak log in a pannel will catch the eye of some animal, and in a few moments there is made a breach for the whole herd of stock to pass through.

ORCHARDS.

If you design to plant trees for ornament or orchard, prepare your land now, by deep plowing, subsoiling and digging the holes.

POULTRY.

This month is the chief time when poultry moult and require extra good treatment. Whitewash the houses, use carbolic soap suds in cleansing the nests. Let them have grain, at least once a day—plenty of clean water and a free run that they catch the bugs and worms, and if these are not plenty give them fresh meat, such as butchers call "offal," or plucks, &c. Turkeys must have grain in plenty, more especially when called to the aid of the tobacco planter in the killing of the worms. They are in this war on the worm, like cats are in regard to rats and mice. You must feed the cat if you desire to have a good *mouser*, and strengthen the appetite and stomach of the turkey with good grain if you wish to see them killed for the love of the sport.

GARDEN WORK.

GARDEN WORK FOR SEPTEMBER.

If you desire to have winter vegetable delicacies and early spring productions from your garden, now is the time to make preparations for both objects. After cleaning up the garden; destroying the insects that infest the plants and small fruits, and working up all the beds not in use, you may look to the sowing of the following seeds and setting out plants; not forgetting to attend to the other hints we venture to offer you for your guidance this month. We esteem this one of the most important months in the year to the gardener, and generally is a trying one to him. September for winter luxuries from the garden is what April is to furnish those for summer.

Early in the month, sow radish seeds—*China white*, or *Rose colored radish*, *Spanish white* or *black*. They are as hardy as the turnip, and may be treated exactly like it, in cultivation and preservation.

If you have not a patch of growing turnips, sow at once some early white. They will most probably mature and be very tender and delicate, if not, they will by being left over the winter, furnish nice greens in early spring.

Cauliflower.—Sow about the 15th instant, some seed, for storing the plants in cold frames.

Cabbage.—Sow seeds at once for plants to be planted out this autumn, or like the cauliflower to be planted thick in cold frames and kept over for very early planting in spring. We really have tried all kinds of early cabbage, but have never found any better or as good, in our judgment, than the *Early York* and the *Large York*. They are the same only one is larger and a little later, and perhaps looser in the head than the other. The *Sugar loaf* is liked by many, and the *flat Dutch* this year was brought into our markets very early and commanded high prices, owing to the size of the heads. Cabbage is eagerly sought after in early summer, and this year brought very high prices—as much as 20 cents per head. This should be an inducement for private and public gardeners to look to its extensive cultivation. It is always saleable and will keep better than other early summer vegetables.

Garden Seeds.—Save these carefully and put them away from all harm. Save none but from the best specimens. If you have anything that is peculiarly fine, save it to itself and cultivate it next year carefully. Thus it is nature often puts a fortune into the hands of the observant and painstaking horticulturist. Look at the *Trophy* tomato, the early

rose potato, &c., a few bulbs of the latter sold in France, we see it stated, for \$1300. We paid for the first trophy tomato seed we sowed, a cent per seed, and never regretted it.

Strawberry Beds.—Keep the old beds clean, thin out, and make new beds.

Gooseberries, Currants and such small Fruits.—Set out new plantations and do not let them suffer for water. Mulch them well; it will help them now and during winter.

Tomatoes.—Look well to these—keep off the vile *Colorado* bug. Be sure to put away in various forms, an amply supply of this indispensable vegetable luxury, for winter use.

Celery.—Earth up the celery, but only when the plant and ground both be dry, and then do not cover the crown of the plant.

Cauliflowers and Brocoli and Peppers—must not suffer at any time for work or water. Three more important and valuable products are not to be found in a garden.

Spinach.—Sow a bed of Spinach the first week, and one the last week of the month. Have a good supply for spring.

Lettuce.—Set out some plants and sow more seed. The *black seed Dutch* is the hardiest for winter, and forms a small but compact, delicious head.

Winter Cabbage, Beets and Turnips, &c.—Keep all these free from grass, by often hoeing or other working, so as to have the land loose about the roots.

Endive.—If large enough, blanch by tying up or turning over them flower pots.

Lima and other Pole Beans.—As these ripen, gather them before the pods burst. Pardon us, in closing, to urge upon every one who feels any sort of interest in gardening, fruit culture or other branches of horticulture, to make an effort to be present at the State Horticultural Exhibition, to be held in this city on the 9th, 10th and 11th days of this month. He or she may be assured that they will be well repaid, and will gain much valuable information, besides secure very great pleasure by their attendance.

CULTIVATING PEAR ORCHARDS.—Randolph Peters, of Wilmington, Del., sometime ago said that he had an orchard of sixteen thousand pear-trees, half standards and half dwarfs, four, five and six years old. The Bartletts and Belle Lucratives are producing from half a peck up to a bushel per tree. A few were left without cultivation. These have not done half as well as the others, and the fruit averages only one-third size on these. He has scarcely lost a tree by fire-blight in all.

For the Maryland Farmer.

How to Get 35 Bushels Good Wheat to the Acre.

It was done on a field, of a whitish clay soil, which had been in clover and timothy and mowed two seasons—the first season it was mowed in June, giving nearly two tons of good hay to the acre, but was liberally plastered with gypsum, early in May, on the approach of warm dry weather.

The next or second season, this clover and timothy field was plastered early in May, and mowed in June two tons of hay to the acre. It was then left to grow till late in August, when it was carefully plowed about six inches deep—having been plowed at least ten inches deep before it was seeded to clover.

For this wheat crop, it was well harrowed and rolled; then the seed put in one and half bushels the acre, with a drill, and then rolled again after seeding, which fixed the seed well in.

In November, when the ground was frozen, the field was top dressed or covered, with barn-yard manure, at the rate of about forty good two-horse loads the acre.

This protected and cherished it in winter, from killing out, by freezing and thawing; also, from drouth in the spring, while it constantly fertilized the growing wheat about the roots, by being washed down by the rains, in spring and early summer.

The variety of wheat used was the old Genesee White Flint; the seed was prepared by being washed and skimmed in salt brine, then rolled in air slacked lime to dry it for sowing; thus, only the soundest seed was sown.

The cost of the crop, charging taxes, interest on land, and all other expenses—allowing half the cost of manure for future crops—was about seventy five (75 cts.) per bushel, and sold for one dollar and twenty-five cents.

LAND MARK.

Thick and Thin Seeding, and Drilling.

As the time is approaching for seeding wheat, it may be well to ponder over the above questions, on which various opinions seem to be entertained and no conclusions arrived at, applicable everywhere. We believe it will be found that nearly all practical rules for operations on the farm are to be considered *relatively*, more than positively and definitely. Rules and principles, on a farm perhaps more than in any other pursuit or profession, are controlled by circumstances. One man recommends a bushel of seed wheat to the acre, and has found this the proper quantity. Another one sows two bushels to the acre and cannot raise a crop

with less. A writer in the *English Agricultural Gazette* set himself to enquire the cause of difference, why one acquaintance sowed three pecks to the acre, and another one three bushels, and he found that the latter was on a chalk soil, where a single grain sown threw up but a single stalk and did not tiller, having but one-fourth the seeding power that wheat has when it produces four stalks to the grain.

We think a *general* rule may thus be deduced that on thin soils, or on land which may be called not in good heart, thicker seeding is always required than on soils of an opposite character, and this for the very simple reason that on rich soils the grain of wheat tillers freely. As regards drilling instead of broad-casting, there was quite an excitement on this subject a few years ago, it being suddenly discovered, after drills had been greatly improved in manufacture, and drilling had been practiced satisfactorily for many years, that wheat turned out heavier to the acre after broadcast sowing than after drilling, and drills were to some extent thrown aside. There was a complete reversal of all that had been fully proved before about the advantages of the drill. We believed then and now, that, owing to our farmers of latter time having given more attention to preparing their grounds by careful ploughing and other preparations before seedings, that the drill went down too deep in a more mellow soil and deposited the seed below the influence of the atmosphere, and consequently but one set of roots were formed. The wheat was therefore easily thrown out by the freezing and thawing of the winter and early spring. This difficulty has been remedied by slightly altering the points of the seeding tubes, so as not to admit of their making such deep furrows, having them broader and not so sharp. All the advantages heretofore claimed for the drill that less seed is required, that every seed is covered at the same depth, that the air circulates more freely through a drilled field, and other advantages remain as true as ever.

The Commissioner of Agriculture, formed his statistics gathered all over the country, shows that while drilling saves one-sixth of the seed, it also increases the product of winter wheat to per cent.

Thick or thin seeding, drilling or broadcast sowing, are therefore to be determined by existing conditions of soil, and neither invariably practiced under all circumstances and conditions. That thick or thin seeding should have reference to the condition of soil, applies not only to wheat but Hungarian grass, oats, barley, rye, &c.—*Philadelphia Practical Farmer*.

JAKOBB DUNK PAPERS
ON
FACTS, FILOSOPHY AND FARMING.
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PAPER NUMBER XVI.

ON WOMAN'S WORK—CHURNING.

During the appearance of Jakobb's strictures (on my remarks) in the *Maryland Farmer*, I was very busy in the work of organization—drilling the columns—I expect him to work up his own case; since then I have had some very wet, tussocky bottoms to dry, clear up and subdue, and this, (with that other little question of utilization of waste involving some \$400,000,000 for the whole country,) and other outside work have prevented me from calling on Jakobb and giving your readers the result of the interviews—this is my apology for silence on this subject.

And as Jakobb appeared very indignant I supposed there was some coolness on his part, and I waited for him to work it off.

But now he sent around to know if I was too busy to step over. His affairs were tangled up again: his calculation concerning income from the new purchase I wrote you about had not been realized; the interest on the mortgage could not be raised, he had had sickness in the family and doctors bills to pay, the crop had been short, and things had got into a twist.

I had some business across the country about a new steam saw and grist mill we want to build in the neighborhood, of which by the by I must write you—and stopped in at Jakobb's through the same old bars, and barked at by the same old dogs, I wrote you of, at about 4 o'clock. The usual salutation, the usual yell at the dogs, the usual pipe, soon announced Jakobb's appearance. Mrs. Dunk was churning: standing up over one of the old-fashioned, back-breaking, foot-tiring dash churns.

Poor woman! And I remember twenty-five years ago when Jenny Smith was one of the smartest and healthiest girls in the country: Jakobb too was a man of some substance then: now, she was pale and sickly: worn out.

I was looking at the churn, and they both noticed my surprise at seeing the churn out at that time of day.

"Them ole-time churns is the best out yit," said Jakobb.

I thought a neat little "Blanchard," that would let a tired woman sit down to it, could not be far behind them, but I said nothing; Jakobb is down on new fangled things.

"Butter is a good while comin to-day," said Mrs. Dunk.

"How long have you been churning, ma'am?" asked I.

"I began at five o'clock this morning to get it out of the way in the cool of the day: I had a good many things to do to get the children ready for school, and cook things for them all, and finish up my house work and other mending, but something has got into the thing"—and her weary look of vexation spoke volumes of the work which she had been compelled to leave undone on account of the wayward, contrary butter—"and you know we must make our butter because that's all we have to live on now." There was no whine of complaint about

this sentence: it was spoken as a calm truth, and told in its frankness of the certainty of the fall from that pride even in poverty, which twenty-five years of bitter unsuccessful struggling with the tide had wrought.

She had accepted the result long years ago, and in the grave of her noble resignation and ignoble routine, had buried all her early ambition for a "higher plane" of action. What a defeat, and yet what a chance for a victory.

I used to think women ought not to vote: but if the privilege may be given as a tribute of homage to merit, I now think some women should have two and some men none.

"Are you often troubled this way?" I asked.—"Pretty often, sir: two or three weeks ago the butter did not come till midnight: your woman told me you never had any trouble of this kind: it 'pears like I don't never git time to go anywhere"—no dissatisfaction, only mild in speech—"or I would have come down and I meant to ask you first time I seen you what the trouble was: can you tell, sir?"

"I might if I had my bulb-thermometer with me," I replied.

This set Jakobb a fire, who had kept quietly smoking. He broke out violently, "Ye don't meen them potnekary tools ye had when ye——"

Something very tart was on his tongue; I read it in his eye as he alluded to our cow trade: but he concluded with—"bought them critters from me?"

When a premature explosion of speech occurs in a person it is always best to let the excitement subside without adding to it by going off yourself: Jakobb felt sorry in a moment, as he thought of his letter on the subject to you and his wife, was uneasy too, I merely replied,

"I have been fortunate in making light work for my folks, and perhaps I could help you to get things so that you would have very little trouble."

But Jakobb could not cool down from his heat very quickly: you have noticed his disregard of his best interests heretofore in giving away to this peculiarity of quick speech. "Joodge," said he, "you need't bring anny of them strange looking bottles that ye can't git nothin into and nothin out on, here: they got only figgers, and I don't bleeve in enny sich proceedins: them old-time people made butter without em, jis as good as some of these people wot's allers gitting new inventions, and I say wot's good enough for them is good enough fur me and mine: ef it had'n't been fur them"—and his memory brought back again in irrepressible force, the cow purchase,—"*I mought a been better off to-day.*"

Silence is a grand argument in some cases: that and a guilty conscience are better than a sermon for conviction: darkness and silence are the two great foes of guilt.

I looked at Jakobb and said nothing, and the recollection of his share of that transaction appeared to come upon him and confuse him.

"Howsomever," he added, in a conciliatory tone, "people don't allers think alike bout things and mabbe, I don't see things exactly right myself."

"How many cows are you milking Mrs. Dunk," I asked.

"We're milking four now, but they don't give much milk."

"How many pounds of butter did you make last week?"

"We got seven last week," was the answer.—That was about all I expected she got.

"We got precious little feed for em, now, and I don't expect they'll make much till we can get em on some good pasture," she continued, "we hain't much range for em, but the old fields and pines, and there ain't much there they can git: they git out into the commons sometimes, but wot with running after 'em of a night, and chasin ov dogs, and school children's tin-pannin ov 'em, and rogues a milkin ov 'em, and they a gittin over into other peoples corn patches, there ain't much satisfaction in that way ov lettin 'em run out, so we keep 'em at home, altho it's very hard on 'em."

Seven pounds from four cows, and I thought of my own brood horned whitey that was rolling up without help 10 to 12 pounds.

But Mrs. Dunk's case was an extreme, perhaps some good dairy wife will say. Let us look at it.

The farms of the country carry about 9,000,000 cows: the yield of butter is 514,000,000 pounds: cheese 54 millions: it takes 10 pounds of milk for one of cheese, and 24 for one of butter: this makes the cheese equal to 22,000,000 pounds of butter: 236,000,000 gallons of milk were sold, equal on the above basis to 80,000,000 pounds of butter: the farms turned out all this.

The factories made 110,000,000 pounds of cheese: equal in butter to 46,000,000 pounds: they made altogether, articles worth \$61,000: this would buy at 25 cents, 244,000 pounds of butter—grand total of butter for the whole country, 650,000,000 pounds of butter: less than 80 pounds per cow a year—at Mrs. Dunk's rate it is 90 pounds. Now, be it remembered this is the *average*, to produce which many cows must give much less than even this small quantity, whereas some cows are giving two, three and four hundred pounds: I made some slight explanation of these figures to Jakobb but he replied:

"Well, wot's a man to do? I hain't got 2, or 3, or even one hundred dollars to buy yer high priced ported stock: them as hasn't plenty of money must do the best they kin: it's all very well fur rich farmers to talk of 8 and 10 pounds of butter a week, but to git that ye got to go to the korn house and meal tub and them as has'n't no korn nor meal, they had better leave that high-blooded stock alone."

I hinted that perhaps there would be more profit in one or two good cows well kept, than in half a dozen allowed to pick a miserable living over all the country, but like all of his way of thinking—the old time way—he saw all this improved farming through a medium of money bags: the money as a *means* of getting the improved stock, the rich fields, the fine houses, the sleek horses, and the big barns, and never once saw these things as a means by reason of facilities and heavy production—of making the money. Plenty of money, made elsewhere may be spent for these things it is true, but plenty of money—taking an *agricultural* view of that word "plenty"—comes from these things: this fact is so easily demonstrable, I hold argument on it useless.

Jakobb could'n't see it. After a while he broke the subject of his difficulties and I went over the ground with him: he was several hundred dollars in debt and must pay or be sold out: his wife was in feeble health—twenty-five years of ordinary life as a farmer's wife, with its usual absence of labor saving implements and unremitting toil, would break down the constitution of a mule, and our

American women are treated worse than any plantation animal—the buildings were tumbling down, his house was not fit to live in, and the land too poor to help him through his embarrassments.

I pointed out errors of his practice as we went on: too much land: too much stock: too little force: poor and unprofitable animals: too much corn and oats, and wheat, and too little apples, and pears, and plums, and peaches, and butter, and cheese, and grass, and hay.

After a long argument, as it was life or death with him, he concluded to sell some of his cattle, a colt or two, part of the land for which he had an offer—low it is true but more than it was worth to *him*—to pay off the mortgage and the debts, repair the buildings with the surplus, and by better cultivation on a smaller scale, I had no doubt he would make more and enjoy it better: he felt encouraged at this view of matters and concluded to take a new start.

"But Joodge," said he, "this last few years has been a miserable up hill row fur me: sumtimes I've thrown down the hoe and made up my mind I'd give up entirely, everything 'peared to work the wrong way: I've worked night and day, hot and cold, wet and dry, and no dog nor mule, nor slave ennywhere has had sich a constant wrestle to keep up as I have had: now I believe I'll try a change: I can't do worse ennyhow."

"Now Mrs. Dunk," said I,—she had been listening almost tearfully during Jakobb's long recital of his and her misfortunes—"you must come down to my house and pay me a visit: you've been working too hard: take a little rest and I'll show you all about our churning, and next churning day I'll step over and get you on the right track."

So Jakobb and his wife came over, I showed them the Blanchard churn, and the test tubes, and the bulb and sink thermometers: we brought butter in 45 minutes: we explained a good many little things about our way of proceeding, and when they went away—well they both looked five years younger—and they didn't go away empty.

I went over there next churning day, tested the cold cream and spring water, and outside temperature: the cream was 55°—entirely too cold: it was put by the fire and brought up to 63°, and butter came in forty minutes.

"Well, I declare," said Mrs. Dunk: "and all by a little bottle with figgers on it that Jakobb says hain't got neither top, bottom, nor cork, what you can't git nothin into nor nothin out of."

"But if the little bottle will save ten hours work occasionally, it pays as it goes—does'n't it?"

Let me give a few notes from my record in conclusion, and say that neither hot nor cold water should be put into cream to get it to the right temperature: as a rule, in summer it will be about right as it comes from the water: the temperature of spring water is from 50 to 60: the cream is usually higher in the cream jar than the water around it, and the summer temperature acts upon it to bring it up to 58 or 60, which is not too high for summer churning: in the winter the cream must be gradually warmed and stirred occasionally, until it gets anywhere between 62 and 67—keep a record of your operations, and then churn at the figure which gives you the best results; but don't try to get butter too quickly: one hour is not too long to churn to get firm, good butter, which can easily be worked and

printed: a high temperature gives quick butter, but of soft and inferior quality—however, experience and a little pen and paper work will satisfy you or your wife of the virtue of a "little glass bottle with fingers on it."

May 20.	Temperature	64°	we had butter in	45 minutes
" "	"	59	"	100 "
" 27	"	64	"	60 "
" "	"	62	"	45 "
June 3	"	67	"	30 "
" "	"	63	"	40 "
" 10	"	66	"	60 "
" 17	"	61	"	60 "
" "	"	62	"	60 "
" 24	"	61	"	60 "

Plowing Ground for Wheat and Rye.

We publish the following which was read by a prominent farmer,—John B. Sands, of Orange Co., New York—before the New York Farmers' Club, at one of its recent meetings, which may prove of interest at this season of the year; and whilst all his suggestions and his practices may not be accepted they will be worthy of consideration. He does not indicate the kind of wheat sown which is an important matter. For a few years past the Fultz wheat, in the Middle States, seems to be the most successful variety, it being earlier, more prolific, and lest given to rust, than many other sorts. He says:—

"This letter may appear premature or too soon, but I have often noticed in our agricultural paper hints and instructions about planting or doing some specific work after the time for such work is passed. To raise a good crop of wheat, and at the same time make it pay at the present price of grain in this section of the country, is a question I think hard to answer at the present price of labor. In raising wheat or rye I never plough my ground but once, but plough well. I know that many differ from what I say about ploughing but once. If my stubble or anything else is so high that it does not turn under well, I harrow the stubble down the same way that I plough. If I use manure or bone dust I always spread it on the ground and harrow in before I sow. Use a broad-cast sower, harrow twice over, sometimes only once, then roll with an iron roller, which leaves ground in fine condition to use the reaper. I find that by harrowing my ground, my grain comes up more even over the ground. I always run my wheat and rye through the fan while using a sieve that lets out all the small grains. I prefer bone dust for wheat to any other fertilizer. Have experimented with bone dust, superphosphate, and Peruvian guano, by using the same money value of each on each acre of ground. Bone dust lasts the longest: it shows the best in the after crops of grass. You may sow half of your lot with bone dust, and if you

pasture your lot your cattle will always eat that part sown with the bone. I have tried and always find it the same. There is much phosphate in bone, which gives the grass a different flavor. Use ammonia, and cattle will leave that grass if there is any other for them to eat. In Orange county the farmers now raise nearly all rye, as the straw brings a high price in the market. I always sow, or try to finish sowing, before September 14, so that the ground is well covered before winter sets in. Sow two bushels of wheat to the acre; one bushel and three pecks of rye, or as near that quantity as possible. If I use manure, forty loads to the acre are none to much. Five or six hundred pounds of bone dust, if good, I use to the acre. The bone dust is the cheapest, as the labor of drawing the manure is quite an item. I used to think that a crop of wheat could not be raised except by ploughing, harrowing, cross-ploughing and other extra work. I admit it is good to cross-plough, if you only plough your ground about half the first time; but I have tried both, and find the extra labor will not pay."

Translated from the French for the Farmer.

WEEDS.

The South has its wild-carrot, its South Carolina Pink, and its saffraas: our northern and Canadian brethren have a still greater pest in their thistle, the great plague we may call it of their Agriculture; the following is from a correspondent to *La Semaine Agricole*: we may substitute the names of our plagues and consider the questions he asks, particularly his last one:

Mr. Editor:—The thistles are a nuisance which will soon invade the whole Province; I have just come from a field in which I have taken care to mow down the thistles before maturity; I have been told to act thus to destroy them, but south wind which blows with force brings me thousands of flowers and seeds which are furnished by my neighbors. I am tempted to conclude there is no remedy for this thistle pest; it is a contagious disease: the moment one field is affected it appears to contaminate surrounding sections in their turn: I ask two things of the readers of *La Semaine* and hope for an answer:

1. What is the best means of destroying forever the thistles which infest a field?
2. What shall be done to compel neighbors to destroy their thistles?

RAWHIDE BOXES FOR MACHINERY:—A correspondent writing the *Scientific American* says:—"I have run a piece of machinery in rawhide boxes for fourteen years without oil; it is good yet, and runs at 4,500 per minute. I put it in while soft and let it remain until dry."

CHEMICALS AND FERTILIZERS.

From a highly interesting correspondence on "Baltimore Industries—The city's history and present resources—commercial aspects and advantages," &c., we copy the following, which we extract from the Chicago *Commercial Advertiser*:

A most extensive business in fertilizers has grown up in Baltimore and many factories are engaged in the city and vicinity in manufacturing phosphates for agricultural purposes, and chemicals for the use of the phosphate makers. The two branches of industry are nearly identical, the phosphate often being made in the same factory with the acids.—An idea can be formed of this immense trade and its relative importance to the commercial and manufacturing interests of Baltimore when its stated that the amount of guano handled by merchants here during 1873 represented about \$7,000,000.—Guano, which is the excrement of sea birds that nestle in prodigious swarms on islands, reefs, keys, etc., was mentioned as late as 1841 in the journal of the Royal Agricultural Society as a curiosity. In 1835 the first cargo of guano was consigned to Liverpool, Maryland being the pioneer State in its introduction in this country in 1832. It grew into popularity and favor, and the trade rapidly increased, Baltimore becoming the principal depot. The use of bones as a manure dates from the first dawn of human letters. An ancient narrative of Welsh history records that about the middle of the 5th century a king of South Wales waged a successful war against the Romans, slaughtering vast numbers, and that their bones were left bleaching upon the surface of the earth. One of his successors caused them to be collected in one pile of marvelous magnitude, and cementing them together he constructed a great prison in which to confine prisoners of war. The old chronicle relates that years after the "bones became decayed so that there was no strength in them and they were reduced to dust; then they carried the remains and put it on the surface of the plowed-land, and from that time they had astonishing crops of wheat and barley, and of every other kind of grain." Thus the bones of battle fields become the source of supply for that ceaseless war of humanity with the elements of the material world.

"Imperious Cæsar dead and turned to clay
Might stop a hole to keep the wind away."

The discovery of soluble phosphoric acid, by treating bone phosphate with sulphuric acid, forming a plant food, was a grand step toward perfection in manuring. Plants are analyzed and the fertilizer is made of the constituents which accord with this analysis. The phosphates have in a great measure, therefore, superseded the use of guano, which is now used principally as a constituent of the made articles. Phosphate of lime is the essential element entering into the construction of vegetable matter. While in the bones of animals its secretion forms over ninety per cent. of the solid weight, but a small provision exists in the soil for its production. Fertilizers are, therefore, used to furnish the soil with this important acid, and agricultural chemistry has become the factor of a diversified and an advanced husbandry. Bone factories have sprung up with rapidity. Over

\$10,000,000 worth of bones are now annually imported into England. A year previous to the discovery of the bone fossils of South Carolina, Baron Leibig, the great agricultural chemist, announced to the world that at the then rate of demand all known sources of phosphoric acid would be exhausted in twenty-five years, but this discovery relieved apprehension throughout Europe, made Charleston the largest manufacturing and distributing point and removed the period of exhaustion one thousand years. Shipments are now made to every leading port from the Baltic to the Mediterranean. In this connection it gives pleasure to mention the great house of

R. W. L. RASIN & CO.,

No. 32 South street, who manufacture "Soluble Sea Island Guano," "Pendleton's Guano Compound," and ammoniacal matter. The factory is located at Locust Point; is equipped with the finest machinery, and turns out 4,000 tons per annum.—Dissolved bone, phosphate and undecomposed flesh are the constituents of the Soluble Sea Island Guano, and while its humus value is unsurpassed it has an ammonia base equal to the best Peruvian guano. Dr. E. M. Pendleton, of Sparta, Georgia, eminent for his experiments in the application of fertilizers, furnished the formula for the Guano Compound. The offal of Western slaughter houses, considered almost valueless until introduced by Mr. Rasin for fertilizing properties, is the source of supply for ammoniacal matter. The fatty condition of this material prevented its being ground or pulverized until Mr. Amor Smith discovered a method of extracting the moisture and grinding it into form which readily combines with other materials used in making artificial manures. The ammonia develops in the soil, goes immediately to the crop and does not waste with other extraneous material. Two factories, one at Cincinnati and one at Fort Ave., Baltimore, turn out 6,000 tons each of this material per annum, and it is used universally by makers of manures.

Mr. Rasin is a pioneer in this line; was identified with the Philadelphia Guano Co. at the time of its formation in 1855; afterwards instrumental in the introduction of Sombrero Island and other West India guanos. In company with its discoverer, Capt. E. K. Cooper, he introduced the Navassa, guano from the Island of Navassa, in the Caribbean Sea, forty miles west of San Domingo.

This firm employs a liberal force of men and does a heavy business. A thousand kind remembrances can never repay Mr. Rasin for innumerable courtesies. If a sentiment were permitted it would be, may the years to come deal as bountifully with him as the high plane of an earnest career in the past has been fruitful in the absence of financial mismanagement, sordid motives and ungenerous impulses. Memorials of friendship which the heart retains betoken nobler things and a higher theme.

GREEN SALVE.—One quarter lb. lard; 1 oz. rosin, 1 oz. beeswax; 1 drachm verdigris; melt well and stir well. This is one of the salves known for old sores, ulcers, cancers, scrofulous sores, cuts and wounds.

THE DAIRY.

LONG TABLE TALK ON DAIRY MATTERS.

TALK NO. VII.

MILK AND SEWAGE.

The utilization of the waste of large cities is justly exciting general attention at this time: the question occupies a prominent position in the minds of Maryland agriculturists, and a committee has been appointed by the Maryland State Agricultural Society, to investigate the subject and report at the September meeting of the association.

It has been suggested and argued that the application of the night soil, garbage and sewage of the city—that is, all its waste—as a top-dressing on grass lands, is the easiest, most economical, and most effective manner in which to dispose of it, the difficulty in the way being a mechanical one; a question of how to do it. The subject has different bearings: we will look first at the sanitary features of the case.

We know that the existence of putrifying organic matter is a source of disease in the poisonous gases thus evolved, and the waste of a large city where impurities are allowed to accumulate, is the most dangerous and poisonous form of decomposing animal and vegetable matter.

Whilst it is true that the soil is a filter acting chemically and mechanically to remove from the percolating fluid its noxious properties, this power of the soil is limited, for it is established that residences built on made ground composed of impurities and saturated, are unhealthy, and their inmates liable to the worst forms of disease.

Under such circumstances the soil becomes a nursery of contamination through organic processes taking place in the earth.

We will give some of the results of the use of waste as a top dressing, remembering that behind these results is the fact that decaying substances soak into the soil and move in it with the motion up and down of the soil water, in seasons of moisture going down and coming up by capillary action in time of drouth: that the underlying earth will by the constant application of impurities to the surface become so saturated, so over charged with filth as to be a fruitful source of debility, fevers and all the complaints that specially afflict the crowded cities of the land. This crude waste, (without previous admixture to dilute and disinfect it) was applied by the managers of an asylum anxious to make good use of so much fertilizing material, to the surrounding grounds near the windows of the house:

the wind carried the gases from the decomposing organic matter into the house, and an outbreak of very severe dysenteric diarrhœa ensued.

In a work, "My Garden," by Alfred Linee, of England, the author argues that the use of putrid manures—(especially, no doubt the fecal matter from fever and cholera patients, Ed.) affects the quality of vegetables, and that putrid matters can be taken by animals and communicated in the dangerous putrefactive state by the milk to other animals: a herd of cows at Wallington was, without the knowledge of the proprietor, fed on sewage grass, when, without knowing the reason the butter was so offensive, the family could not leave it on the table: other persons made loud complaints and there was no sale for the butter. The sewage grass was discontinued, and the cream, milk and butter became good.

Anxious to decide the important matter definitely he ordered the use of sewage grass again, without any notice to the parties using the products, when the same results again occurred: no care in the preparation of the butter could avert the rancidity.

Alfred Smee in a letter to the *London Times*, says that the proprietor of a large dairy which supplies several of the largest institutions in London, once used sewage, but was obliged to discontinue its use, as the milk became unsalable.

Mr. Bardwell, Great Queen Street, Westminster, states that butter made from a meadow to which night soil had been applied was utterly unfit for use. Similar testimony is furnished by Mr. Holly of Eastbourne.

Detective Field of our own country, states that the same thing has been noticed here.

In the villages of India the buffaloes eat putrid matters, tainting the milk in a very offensive manner.

In Beddington School 60 cases of typhoid fever occurred when sewage milk was supplied.

Upon the other hand, we have strong testimony from one witness, in favor of the use of sewage for the production of milk and vegetables, and of the healthfulness of the articles thus produced as determined by vital statistics.

When it is remembered however, that the best results are attained only by the application of 12,000,000 to 20,000,000 pounds of the liquid per acre; that the system can only be prosecuted at enormous expense: (London's works will cost \$20,000,000,) that at best only a few favored spots in the vicinity of the city could be benefitted by the system, spots which already have superior facilities—by reason of proximity to say nothing of water and steam—for obtaining manures: that water does not alter the constitution of these excrementitious and

waste matters, but rather hastens decomposition, and that hence the transportation and use thereof must necessarily be attended with danger—when we remember, in conclusion, that the whole sewer system is condemned by the most advanced exponents of hygienic science as a reservoir of pestilence and death, by reason of the poisonous gases constantly emitted from the pipes, mains and sewers of the city—numerous cases of fatal disease having been traced to this cause—it will be seen that a vast body of irrefutable evidence points to the impracticability of adopting carriage in water as a means of utilizing waste and increasing the fertility of our impoverished lands.

We will add that England is prosecuting this system to a considerable extent, the sewage farms as well as works being owned by the cities: that the Inspectors General of French Agriculture have examined the sewage works of Paris, and the Minister of Agriculture has offered prizes and works of art in gold, silver and bronze, to persons securing the best results from the use of these waters: that the committee of the State Society is working energetically at the work entrusted to them, and from this body of investigators, and the great army of sanitary reformers we may hope for a speedy solution of this question, which having a bearing on the saving of \$400,000,000 for America and thousands of precious lives, we may justly rank as one of the greatest now engaging the attention of philanthropists.

DAIRY ITEMS.

FEEDING—SOILING.—If you are following the soiling system with your cows, one advantage of it is now apparent: you can give the cattle a feed of fresh strong juicy corn fodder three times a day instead of depending upon the dry woody, withered and weedy stuff of the pastures: if you have made no preparation for this time of trial before the fall rains, give the cows some cut hay, meal and bran, a peck of hay, and one quart each meal and bran to each cow, morning and night: keep the yard clean by frequently removing the manure and scattering straw and plaster around it.

PENNED COWS.—Do not keep the cattle penned up too closely: although a large number are sometimes kept closely confined to the stalls with success, yet the best results are attained by having an adjoining lot with shade and good water for the cows to run in, not so much for pasture, that can be furnished in the morning, noon and night feedings, as for the peace of the animals which are more or less uneasy in enclosures: but if the cattle are

confined, see that they are cleaned off, the stables well ventilated and kept clean by frequent bedding and cleaning, and cool by sprinkling cold water on walls and floors. Cows *can* be kept up and do well but only by proper and constant care: neglect is fatal.

CALVES.—See that the calves you have turned out have a pint of bran and a little meal twice a day, with salt and good water to run to: a little attention now will put them, on winter feed, in good order, and if they *must* be exposed in winter they will stand it better with some fat on their ribs.

HOLSTEINS FOR MILK.—It has been found by accurate trials that it takes from 27 to 28 lbs. of milk to make one pound of butter, and a gentleman in a late agricultural meeting stated that it would take 27 to 28 lbs. on hay. W. W. Chenery, of Belmont, has cows that have given 76 lbs. of milk a day. Simpson of Cambridgeport has a crossbred Holstein cow that gave 6390 quarts of milk in a year, the half bloods, it is said, being nearly as good for milk as thoroughbreds.

Maxims that lead to Success.

John Johnston offers the following for the consideration of every farmer who would prove a success:

There is no great success in farming without hard work, but it is the good thinking that costs, not the plodding alone. It is up-hill business to go against the common judgment of all your neighbors, but if you are sure you are right go ahead, no matter what they say. The servant is not above his master in industry. The former must be able to lead the field and know whether a man is doing good work, and the workman must know what a day's work is. I said forty years ago that I would use plaster if it cost me \$40 a ton, but clover and plaster alone will not keep up the fertility of grain farms. When I see a man draining his farm and carting out notable piles of well rotted manure, I consider him safe. He can borrow money to make improvements, and the sheriff will not often tie up at his hitching-post. When the midge demands an early harvest, or the ground is so rich that the straw falls, I have almost saved a crop by sowing salt. Farmers miss it in giving up the old worm-fence. It is the cheapest in the end. I wire the stakes together and keep the bottom rail up. It is awkward looking, but I have sound rails now that were not new forty years ago. I have burned good rails in my time, but I did not know as much then as I do now.

HORTICULTURE.

FALL PLANTING.

It seems to be conceded by those who have had considerable experience that the Fall is one of the best seasons of the year to plant evergreens, and by the fall we do not mean November and December, but September and October, from Maryland southward. Of course when we get to what we may term the South proper, they can be set out any time during the winter season. It is now getting to be a common practice in the middle States to commence planting after the first heavy rain in September. It is said that in this plan of planting the losses rarely exceed five per cent. in any ordinary case, though of course under bad management there is the same risk of losses as at any other season.

It is not so easy under this plan to get evergreens from a distance as we can later in the season. The warmth of the weather is liable to dry through the cases, no matter how well packed, and besides there is more danger of the plants being injured at the roots while being dug for transportation when this work is done in the heat of September. And there is no tribe of plants that suffers so much by their roots drying as evergreens. One may take an oak and expose it a whole day and it will not suffer as much as a hemlock or an arbutus left out but half the time. It is very essential therefore in transplanting evergreens at this season, not to let the roots dry for an instant, if possible to prevent it. For the same reason it is very desirable in transplanting, to press the earth firmly in and about the roots, as it is only by touching the waste earth, that the roots can keep themselves moist. In cavities they dry as if they were in the exposed air.—It is fortunate that it is not necessary in these days to send far for things like these. Near almost all large towns there are now nurseries equal to the demands likely to be made on them, or at least they would be if they received the home encouragement they are entitled. Around our city of Baltimore and Washington, it is very easy to get from the nurseries evergreens that need be but a few hours out of the ground before setting again.

The advice in regard to fall planting of evergreens is of course with a view to the use of trees over two feet high. Smaller ones are liable to be drawn out of the soil by the frosts of winter, and are best left to early spring.

PEACH GOSSIP.

Complaints have often been made that the peach growers have not correctly reported the condition of affairs, and there have been from time to time appearances that things were not as represented.—We believe that as a general rule these were but appearances, and that the intention has been to give the matter exactly as it stands.

At any rate, there can be no such charge this year. It was said that most of the peaches were injured except the Hales' early, which escaped.—The result has proved exactly so. The Hales' early made up the bulk of all the early ones in market. The canning establishments were so well assured of the scarcity of peaches that few in comparison with former years will be put up. This will aid the sales for another year, in case there should be a good crop then. It is a pity that some better early peach than Hales' cannot be discovered. Its earliness is its only merit. It is not of high flavor, and the size is small, and then there is a greater tendency to rot than in any other.

There is a great opening for a new early peach, and a fortune awaits the man who successfully enters it. It was thought that perhaps the early Beatriee, the early Louise, or the early Rivers would come up to a high standard, but we have been unable to find out anything positive about them, although much money has been spent on the plants. There are to be sure "certificates" in abundance from agents and commission men afloat, but although these may be all right, we know how many bottles of never failing medicines some of our friends have emptied uselessly in their time on just such undoubted evidences. We had these evidences last year, and expected to see what we should see this year, and are a little disappointed that we have seen nothing. We are not satisfied either to have to think that the miserable Hales' early should have to remain our best early peach, but it seems to be so yet for a while, and we must endure it.

REMEDY FOR THE PEACH WORM.—Mr. P. Stewart, of the New Lebanon, N. Y., Shakers, communicates to the American Institute Farmer's Club a mode of ridding peach trees of the borer, consisting of a mixture of one peck unleached ashes, a quart pure salt, one pint flour of sulphur, four quarts bone meal, and two quarts of fine sea gravel. Of this mixture he puts about a pint close about the parts affected by the worm.

STRIKING CUTTINGS.

The fall of the year is generally the time when ordinary people think of striking cuttings, though professional florists are putting in various kinds all through the year. In regard to this horticultural practice there has been a great change during the past few years. In old times it was the endeavor to give cuttings as little water as possible. It was always stipulated as a condition of success that the pots used for the purpose should be well drained. In some cases writers have insisted the pots to be used for cuttings should be half filled with broken pots, in order that the water might be induced to pass rapidly away.

Expensive arrangements had to be made for the purpose, and to manage a propagating house was regarded as the test of a good gardeners abilities.

Day by day the cutting pots had to be carefully watched, and just so much water given, no more and no less, and just at the right time. Now it is known that water is no injury, but one of the best elements of success; and the chief care required is to leave them to the careful attention of the broiling sun. An amateur friend of ours propagates Roses, by first corking up the hole in the bottom of the pot, then filling it with any rough road sand—quite up to the view; getting cuttings of half ripe wood about four inches long, and setting them about one-third the length in the sand, setting the pots in the full sun along his garden paths, and then soaking them with water. He gives them another dose morning and evening, and as the hole in the pot is closed the sand is in the condition of slush. In a couple of weeks if the sun is warm the plants root.

By this plan he rarely has cuttings to die, and yet to propagate roses is often one of the most difficult things in a gardener's experience. Soft wooded plants, as Geraniums, Verbenas, and the like, are generally called, will often root in this way in a few days. After they are rooted they are taken out of the water sand and put into the regular earth. Here however it will not do to saturate with water. After potting, they are once well watered, set into partial shade for a day or two, and after that the treatment is in the regular way, according to old established rule.

Some kinds of plants indeed root well entirely in water. Of these are Oleanders, Ivies, Salvias, and even Geraniums. They are put into the mouths of the bottles, and hung up into the full sun.—Almost any plant will root in water if the proper selection of wood for cutting is made; but this can only be learned by practical experience in each case. Old hard wood of the Fuchsia, for instance,

will not grow in water, but the old hard wood of the Geraniums will grow better than young wood. The plan of striking however is so simple and easy that it is well worthy of any ones time to experiment with various kinds of wood, so as to see what will grow and what will not. A few weeks and often a few days will suffice to teach us all we need to know.

WILD ORNAMENTAL PLANTS.

Many of our country people could have their homes easily decorated without the expense of rare exotics, by merely planting the wild trees and shrubs about their dwellings. Many of these do not appear very ornamental, when struggling for life with other wild plants or under the shade of forest trees. When taken from these unfavorable circumstances, and given the commonest garden care, they are often so different from their ordinary wild appearance, that few would recognize them as a wild acquaintance of forest or field. Among the most beautiful of these indifferent wild things, when cultivated, are the wild Black Haws, which are abundant in every wild tract through our State. A straggling bush in that state it is of a regular form when it stands alone. We are reminded of its great beauty by noting that the English papers are beginning to call attention to it as among the most desirable things for them to introduce to this country to cultivate. A recent issue of the *London Garden* thus writes of it:

"The Plum leaved Guelder Rose—*viburnum prunifolium*. This very handsome shrub, which is hardly known outside the precincts of some botanic gardens, deserves to be extensively planted in pleasure-grounds and shrubberies, on account of the beauty of its broad corymbs of innumerable white and slightly fragrant flowers, the attractiveness of which is still further enhanced by the feathery appearance of the long projecting stamens, each tipped with a large yellow anther, which contrasts pleasingly with the pure white of the petals. The leaves are opposite, deciduous, oval in shape, very finely toothed, shining on the upper surface, smooth on both sides, and borne on short slightly winged stalks, not quite half-an-inch long. The plant is a native of North America, and is perfectly hardy, bearing our winters uninjured. It is easily multiplied from seed, which should be sown in peaty soil, and which germinates readily, especially if it is sown soon after it is gathered."

We have some half dozen species of the Guelder Rose wild in Maryland, any of which is as beautiful as this which the *Garden* refers to. Any who want to bedeck their grounds with cheap, and yet beautiful plants, should look after some of these wild things.

Keep sober, and you will have no trouble in getting along.

THE SNOWBALL.

This old fashioned flower is rarely seen in modern grounds, though in old ones it is usually among the most prized treasures, as it well deserves to be. There are few objects more striking than a large bush of Snowballs in flower. It may be that the scarcity is owing to the difficulty often found in striking cuttings. Sometimes they grow, and sometimes not, just as they seem to take a notion to. We old folks used to increase them by taking them apart. In old plants, they can be often so divided as to make several dozens. A certain and sure way however to raise snowballs is to lay down some of the branches. If these are given a gentle twist so as to partially split the branch at the place where the branches put under the ground, roots will come out at the split part, and in a year the rooted portion can be taken off as an independent plant.

The Snowball cannot be raised from seeds, because it never produces any. It is in fact a male form of the Guelder Rose *Viburnum*. The female form has very insignificant flowers. In this the male guelder rose or snowball follows the same law that birds follow, in which the male has generally the most showy and the most striking colors.

Of late years a new snowball has been introduced from Japan known in catalogues as the Japan Snowball—*viburnum plicatum*, but we believe it is still scarce. This also is a male form of some Japan thing, but the balls are larger and of a purer white than the common snowballs are. The leaves are also said to be beautifully plaited or plicate, whence its scientific name. It will probably increase by laying down as the common snowball does.

The Petunia.

The Petunia, so common in this country, is much more highly appreciated in England. A recent traveler through that country, thus writes about them :

"But Petunias are also excellent plants for the decoration of the greenhouse and conservatory when grown in pots ; and then there is scarcely a horticultural exhibition held now, large or small, at which prizes are not offered for Petunias, in pots. In some parts of the west of England, wonderful examples of Petunias are grown for show purposes. They are put into large pots, and the plants tied out to sloping oval wire frames, by which means the flowers face all one way, and quite a dense surface of flowers is thereby obtained. If some plants are grown on into 48 and 32-sized pots, and pinched back for a time, to form nice pyramid-shaped plants, they soon become covered with flowers, and remain in bloom for a long period. They should be kept well watered, for they speedily suffer if allowed to become dry at the roots. Petunias are also well adapted for growing in stone vases and baskets, as they hang down over the sides, and have a charming effect."

Insects on Window Plants.

Those of our Lady readers who are "bothered with the bugs" on their room or window plants, may profit by the following from *London Garden* :

"There are insects that multiply by hundreds, and destroy the labour of months in a very short time, as we know they have often done in many places. Those who have glass-houses can control the various insects which destroy foliage and prevent plants from flowering, for they have only to close the sashes and doors, and to light a pile of tobacco refuse and the insects forthwith depart.—Ladies, however, who keep plants in windows during winter, and on balconies in summer, are not able to do this ; but if they possess a tobacco-loving biped, they might devote his admiration at the shrine of tobacco to some practical purpose, by requesting him to so arrange his morning and evening devotions, that the smoke of his burnt-offerings might mingle with the leaves of their pet plants, and thus keep their branches and foliage free from these pests—green fly and red spider. If, however, their possessions do not include this species of humanity, they can brush away the aphids with a feather, by placing the pot upon paper, on a stand, and afterwards burning the paper. Red spider is not easily diverted from his destructive course ; so it is often needful to immerse the whole plant in strong tobacco liquor for ten or fifteen minutes, to dislodge him from his winter and summer quarters. This minute insect is one of the most detestable pests which infest house plants, and many a stand of plants is ruined through his agency. His presence is known by plants not having a healthy appearance—when their leaves curl up, and their bright green hue is gradually assuming a dingy look ; under such circumstances apply the smallest of microscopes to the under surface of the worst looking leaves, and the disastrous effects will soon be perceived. The leaf will be found covered with red tiny mites, sucking out its strength and vigour. Roses, Carnations, Geraniums, Heliotropes, Fuchsias, and similar plants, are the favourite haunts of these red marauders, and often they take up their abode in foliage for summer and winter, unmolested, because the owner of the plants know not of their peculiar habits. The flowers are not produced, but the reason is unknown. If badly infested, tie something over the top of the pot to keep the earth from falling out, and then immerse the whole plant in soap suds or tobacco-liquid. Then take it out and dip it into pure water, to rinse off the suds or tobacco thoroughly. Perhaps the tenderest shoots may be injured, but that is no matter."

REMEDY FOR LOOSENESS IN THE BOWELS OR CHOLERA MORBUS.—It is an old thing and has probably been told thousands of times, yet some may have forgotten and others may never have heard it.—Mix two table-spoonsful of wheat flour with just water enough to moisten the flour ; drink it. If the first dose does not check pain, or the purging, repeat the dose in half an hour. Severe cases sometimes require a third dose.

PLOWING ORCHARDS.

We have devoted much space in previous numbers of the *Maryland Farmer* to this question, and now submit more important testimony upon the subject: this evidence comes in the proper shape, that of direct experiment, and is written by John I. Carter, of West Grove, Pa., and is copied from the *Practical Farmer*:

THE PLOW VS. GRASS, IN PEAR ORCHARDS.

I would like to give you our experience at the Eastern Penna. Experimental Farm, on this much vexed question, and to offer a few unscientific, but I trust, practical suggestions, that may serve to partially harmonize the opposing theories, and afford a safe guide out of the difficulty.

One section of our pear orchard, of several hundred Bartletts, had lain in grass for five or six years, until it had made a very tough sod, so tough, indeed, that it required a very sharp plow to cut it. Last season this section was carefully ploughed, as closely to the trees as possible, and left without further cultivation during the season. The sod was too tough to do anything with it.

Section No. 2, had been cropped in potatoes and truck, until the last two years, when it was put down to grass. The trees upon this section were much the larger, and had previously done better than those on section one.

Both sections had been dressed a year ago, with one bushel of unslacked ashes per tree, spread around the trees as far as the branches extended. Now for the result:—

Both sections set a heavy crop of fruit this season, which we thinned out to what we thought the trees could sustain. The fruit on section No. 2, ripened the earlier, but the trees dropped their leaves prematurely. The fruit did not grow so large or fine, and had to be marketed during the glut of the season.

On section No. 1, the trees retained their leaves quite late and the fruit grew large and perfect; so fine, indeed, that our neighbor Dinges said he had never seen finer in the great pear orchards of New York. This fruit held on the trees so well we prolonged the market, and secured \$4 per crate, wholesale, for it. While the fruit on the other section looked so different, that a friend, who was a reasonably good judge of fruit, in passing from one to the other, failed to recognize them as the same variety.

The ploughing of course made this difference in the two sections, but it does not follow that no other course would have produced the same results. They would have been reached by pursuing Mr.

Meehan's practice of putting on all over the surface, two or three inches of rich compost, sufficient to smother the grass and mellow up the sod. This would have the same effect as the plow. But Mr. Meehan's theory is a dangerous one, because in the first place it is expensive; in the second place it looks as though it would make less labor, thereby tempting many farmers to try it, who would fail to carry out the necessary conditions for the success of the non-ploughing practice, viz:—the heavy manuring.

Hence, it is altogether safer to advise orchardists to keep the ground mellow and loose with the plow rather than not at all. If you have manure to spare by all means use it, but see that you, somehow, keep the soil in such condition that air, light, warmth and moisture can easily penetrate it, enabling the tree roots to readily gather up their food. There can be no doubt that a tough sod will injure the health and growth of fruit trees, but you can remedy this either by the plow or a heavy mulch of manure.

Yellows in Peach Trees.

The *Gardener's Monthly*, Philadelphia, gives the following on the subject of *yellows*:—

"If you dig around a peach with the yellows you will be first struck with a 'mushroomy' smell.—Picking out the roots, and examining them with a lens, you will see millions of thread-like fibers, which are the mycelia of fungi. These eat the young fibers, and leave only the main roots, through which all the nutriment of the plant has to be gathered; and as an old root is unable to do much more than draw in water, the tree becomes in a measure starved, and the leaves become yellow, just as they would be if growing in poor soil, which, though the plant might have plenty of roots, furnished nothing for the roots to eat. To have plenty of roots and no food, is equivalent to having plenty of food and no roots. The remedies which look to the destruction of this root parasite are employed.—Hot water has done it; so has a weak solution of salt; others have found a weak solution of potash succeed."

MIDDLE PARK SALE.—The recent sale of blood stock at Middle Park, Eltham, England, ruled high: A brown filly by Blair Athol, sold for 2,000 guineas, or more than \$10,000; Seclusion, a mare seventeen years old, with her filly foal, was sold for \$12,500; Panders and filly sold for \$6,500, and Vespasian, eleven years old, for \$15,000. Several other colts and fillies were sold at prices ranging between \$2,000 and \$5,000.

When is the Best Time to Trim Fruit Trees.

This subject was under discussion at a recent meeting of the Experimental Farm Club of Chester County, Pa, from which we condense the following from the *Practical Farmer*, believing it will prove of interest to our readers :

Milton E. Conrad said the best time to trim was when the wounds would heal quickest and when the trees were growing most rapidly, about the sixth or seventh month.

Prof. Peck said when to trim was not an important question in orchard culture. He had seen trees trimmed at all seasons of the year. A prominent orchardist said not to do it when sap is flowing and the buds swelling. It does not make much difference as to the time of the year only provided the tree is making wood rapidly and you don't cut large limbs. In olden times old limbs were cut off. A wound will heal more rapidly from the middle of May to the middle of July.—Mineral matter is what the tree depends upon for vigor. Fruit trees require more mineral matter than forest trees because we exact more from them. If wood ashes or potash are put on the roots of trees they will do well. In the forests the leaves fall to the ground and supply the trees with mineral matter but in orchards they blow away. Go to the forest and collect leaves and rotten wood and put about the trees in your orchards. When wood ashes are not to be obtained get potash or lime, especially potash.

Mr. Conrad asked how to supply ashes, &c., to roots? Prof. Peck said, by digging down to the roots or digging down far enough to prevent the grass obtaining any benefit from the ashes or potash.

George Balderston said there were two general principles involved, over-bearing and barrenness. If the tree is weakly cut off some branches, and after the fruit is set cut off some branches. If some trees which are growing headlong be trimmed and checked in their wild career, the effect will be good. If you trim a tree before the sap is run you make a sucker, but if you wait until the sap has run out its course you have no suckers. Abner Garrett said he had cut apple trees when in full bloom only on one side and had reaped a good crop of fruit. Other trees which had been trimmed all over didn't do so well. Prof. Peck said when you trim a tree the remaining branches get more of the mineral matter absorbed by the roots, which is always a constant quantity. Didn't believe in too much trimming but did in feeding the trees with mineral fertilizers—potash and lime. John I. Carter said the Muriate of Potash could be obtained for 2½ cents per pound. Marcellus S. Cook said a luxuriantly growing tree produces little fruit, stop that, and fruit will come and continue coming until the tree is exhausted. Putting an elastic band around the tree or belting the bark in the month of June will make the fruit come. He had done it in his orchard in two instances; change the circulation and you will get fruit, checking the returning sap develops the embryo bud. If the tree is pruned in June the wounds are healed more readily. Orchards should be pruned when young and not when old.

The President said he had a tree that was not bearing, and turning his hogs into the orchard, they made the ground about this tree a place in which to sun themselves, it having such a fortunate position. The continual rooting and manuring by the hogs, started the tree to bearing grandly.—Two other trees which had been skinned by the hogs, redeemed their former barrenness by bearing profusely thereafter.

POTOMAC FRUIT GROWERS.**AUGUST MEETING.**

There was a fair attendance at the Session, including several ladies. Chalkley Gillingham, President in the Chair, and D. S. Curtiss, Secretary, read last minutes.

Fruits were exhibited on the tables by D. O. Munson, Stacy Snowden, and J. H. Gray—the two former fine specimens of several varieties of apples; the latter, some beautiful Hale's Early Peaches.

After considerable discussion on the subject of Peach Growing, it was decided, that dry, warm, seasons and localities, with land not too rich but cleanly cultivated, are most favorable conditions for successful peach growing. This was affirmed by Prof. Wm. Saunders, and President Gillingham, and concurred in by most of the members present; but, moist, rich land was not favorable.

J. H. King asked if grassing peach orchards was favorable to good bearing—and was answered, yea and nay.

N. W. Pearsons, said his Hale's Early did well last year—but has none this year—from same trees.

S. E. Chamberlain said his Grape crop, this season, is the most promising he ever had—peaches, poorly.

D. S. Curtiss called attention of the Society to the fact of the death, since last meeting, of one of our most esteemed members, J. W. Cox, Esq., and on motion the Chair appointed a Committee to draft the expression of the sense of the Society in regard thereto.

Dr. John Brainerd, from the Scientific Committee, read an interesting paper, showing his belief that applying mineral poisons to plants, to kill insects, is dangerous and deleterious to the health and life of those who eat the plants. Dr. Snodgrass differed in opinion from this.

Adjourned to first Tuesday in September, when all are invited. LAND MARK.

A Georgia paper promises to publish a "thrilling cereal" Its readers will probably make an *oat* of it. Georgia still lives!

THE MARYLAND FARMER,

A STANDARD MAGAZINE

EZRA WHITMAN,

Proprietor.

Col. S. SANDS MILLS,

Conducting Editor.

Col. W. W. W. BOWIE,

Associate Editor.

OFFICE—145 WEST PRATT STREET,

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T. C. DORSEY, Business Correspondent.

D. S. CURTISS, Washington, D. C.,

Correspondent and Agent.

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Special Contributors for 1874.

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John Merryman,
A. M. Halsted,
Ed. L. F. Hardcastle,
D. Lawrence,

John Carroll Walsh.
John Lee Carroll.
Augustus L. Taveau.
John Feast,
John Wilkinson.
John F. Wolfinger,
C. K. Thomas.

THE MARYLAND HORTICULTURAL SOCIETY

Will hold its next monthly meeting in this City on Thursday, September 10th, (Second day of the Exhibition,) at Lehmann's Hall, 277 N. Howard Street. The Annual Election of Officers will take place on this date. Members will take notice.

EZRA WHITMAN, *President.*

T. C. DORSEY, *Secretary.*

THE ROOMS OF THE

Maryland Agricultural and Mechanical Association,

Are now open for the RECEPTION OF VISITORS, daily from 10 A. M. to 6 P. M.

S. W. corner of Fayette and Eutaw streets.

A. BOWIE DAVIS, *President.*

T. B. DORSEY, *Secretary.*

The Maryland State Agricultural and Mechanical Association.

We are assured by the managers of this Association that the coming Fall meeting, which will be held October 6th, 7th and 8th of October next, as heretofore announced, at Pimlico, near Baltimore, will be one of great success. Many important improvements are in progress, and the deep interest evinced by the officers in every department is a guarantee that the public will not be disappointed. Increased facilities will be furnished the public for reaching the grounds with the least possible inconvenience. We again urge our people not only to give their presence but also send animals or articles for exhibition and competition, and thereby make the exhibition one that every Marylander can take a pride in. We have already published the list of premiums which are on a liberal scale.

List of Officers for 1874.—*President*—A. Bowie Davis; *Correspondent Secretary*—W. S. G. Baker; *General Secretary and Treasurer*—T. B. Dorsey.

Executive Committee.—A Bowie Davis, Joseph H. Rieman, Dr. W. H. DeCourcy, Henry O. Devries, R. F. Maynard, Jesse Slingluff, W. S. G. Baker, C. K. Harrison, John Merryman, H. B. Holton, John Rush Street.

Orator.—Hon. Allen G. Thurman, of Ohio.

Marshal.—Richard F. Maynard.

RAISING WATER.—W. S. Alston, Esq., of Dunn's Rock, N. C., writes us: "Can you advise me as to the simplest and cheapest power for conveying water from a spring to my dwelling, about 100 or more feet, and the probable cost?"

Mr. A. has omitted to furnish indispensable data, to enable one to furnish what he requires.

The amount of water flowing from the spring in a given time, and the height to which the water is to be raised. We would recommend Mr. A. to confer with Mr. J. Wilkinson, Landscape Gardener, of Baltimore, giving him the particulars.

SILLY ERROR—"CALVES" vs. CARES.—An advertisement in our last number headed, BELMONT STOCK FARM, began thus: "To reduce stock and lessen CALVES," &c. It should have read CARES instead of CALVES, and for such a monstrous blunder we beg pardon of our old friend S. W. FICKLIN, Charlottesville, Va.—our proof-reader, as is too often the case, was abroad about that time. See new advertisement of Public Sale of Thoroughbred Percheron Norman and Black Hawk Stallions, &c., and Short Horn Cattle all of superior strain, by the same gentleman.

Condition of the Corn Crop.

The August returns to the Department of Agriculture from New England show a general improvement in the corn crop during July, though it is still backward. Maine averages 92 per cent. of a full crop; New Hampshire, 98; Vermont, 87; Massachusetts, 101; Rhode Island, 100; Connecticut, 107. It is very promising in portions of the Middle States, but in other parts it was injured either by drouth or excessive rain. A decline is noted in New York, where the average is 94, and in New Jersey 91. Pennsylvania and Delaware have both risen to 1 per cent. above the average. Of the South Atlantic States, Maryland shows 96 per cent. with the crop damaged by drouth, especially on stiff soils; Virginia, 90; also damaged from the same cause and from insect ravages; North Carolina, 91; a loss of 1 per cent. South Carolina and Georgia have risen to 10 per cent. above the average. Florida, 102, maintains her July average.—Texas declines from 106 to 102. The other Gulf States show enhanced averages, as follows:—Alabama, 107; Mississippi, 95; Louisiana, 77. The last-named is partially recovering from the effects of the freshets; some insect injuries are reported. Of the Southern inland States, Arkansas, 85 and Kentucky 80, show some improvement, while Tennessee 70, and West Virginia 82, indicate the continuance of unfavorable conditions. These low averages are accounted for by severe and extensive drouth. North of the Ohio River all the States show a depressed condition from drouth and insect injuries. Chinch-bugs were active in Illinois and grasshoppers in several counties of Wisconsin.—The State averages are as follows: Ohio, 93 per cent.; Michigan, 98; Indiana, 106; Illinois, 86; Wisconsin, 98.

IMPORTANT TO COW OWNERS.—We have now in our press an *Illustrated Essay on the Dairy and Dairy Farming*, prepared by our well known practical Agricultural writer, and contributor to the *Maryland Farmer*, J. Wilkinson, Esq., at the request of the Executive Committee of the Chester Co. Pa., Agricultural Society, for its members. We have carefully read the manuscript and find it replete with usefulness to the cow owner.

We have permission to work off a large edition of it, so that we will be able to send it at 50 cents a copy, post paid, to all who may order it. It is up to the hour, and well worth its cost.

A soil abounding in vegetable matter will pay a much better per centage with commercial fertilizers than one having but little of this substance.

IMPROVED STOCK SALES.

Clifton farms, Kennett Square, Pa., have recently sold the following thoroughbred Ayrshires: The Prize bull, Milford, 7 years old, to E. Worth, Jr., Cheese Factory, Marshallton, Pa. The Prize bull, Robin, Jr., 5 years old, to T. S. Robinson, Esq., Wilmington, Del. The young bull, Kennett, to T. T. Tasker, Esq., Philadelphia, Pa. The young bull, Denver, to George Roe, Esq., Branchville, N. J. The young bull, Diamond Duke, to Dr. J. N. Kerlin, Media, Pa. The two heifers Kennett Belle and Odley Belle, and the bull calf Odley Duke, to John S. Rankin, Pekin, Ill. The three heifers, Jewell Belle, Abbie of Kennett, and Kennett Charm, to W. C. Norton, Aldenville, Pa. Also the three heifer Calves, Kennett Darling, Lady Palestine and Miss Bellmeyer, and a bull calf, to A. B. and A. C. Tate, Esq., Clearfield, Pa. Also the cow Laura to same party, and a heifer Calf, to S. McFadden, Clifton, Pa. Also quite a number of Prize Chester White, Berkshire and Essex Pigs, of unsurpassed blood, to various parties in the different States.

J. J. TURNER AND CO'S "EXCELSIOR," AND "AMMONIATED SUPER-PHOSPHATE."—By reference to our advertising columns it will be noticed that this firm has reduced the price of their standard "Excelsior" from \$60 to \$55—also reduced their "Ammoniated Super-Phosphate" from \$50 to \$45.—These Fertilizers have now been in the market for sixteen years, having been thoroughly tested, and each year meeting with increased sales. In their card they give reasons for the reduction of prices.

ACKNOWLEDGEMENT.—We have been the recipients of a large number of invitations to attend State and County Fairs throughout the country, for which we return our thanks. We shall do ourselves the honor to attend at least a portion of them. We publish a full list of the State Fairs to be held this Fall in another column.

VICK'S FLORAL GUIDE—FALL 1874.—No. 4 is received, and treats of "Autumn Work in the Garden,"—"The Winter Garden,"—"Pots and Glasses for Bulbs,"—"Culture of Bulbs,"—"Keeping Celery," &c., and lots of things interesting to the florist. It is beautifully illustrated, and worthy a place on every drawing-table. Send to Rochester, New York and secure a copy.

There is a great waste of ammonia when Peruvian Guano is used in its concentrated form; it should be mixed with super-phosphate, alkaline salts, &c.

THE CATAWBA GRAPE.

HAMMONDSPORT, N. Y. August 10th, 1874.

To the Editors of the Maryland Farmer.

I notice in your June number of the *Farmer* in an article "Notes on Native Grapes," that you have made a mistake in speaking of grapes suitable for Northern climates. We have been raising grapes along our lake and through our valley for these twenty years, and the *Catawba* has been our favorite, and there are now hereabouts fully six thousand acres in cultivation in this variety, which we let hang on the vines until the latter part of October to the 10th of November, when they are either shipped to the large cities and sold, or sent to our wine cellars and made into wine. Our grapes are now reddening, and we expect a very large crop this fall, for all the vines are now hanging in luxuriant clusters, and if you should make us a visit this fall, the sight will well repay you for your trouble, so you see it is not a fact that the *Catawba* "seldom ripens in perfection" in the State of New York.

Yours, truly,

MARART.

Our correspondent by reference to the article alluded to, will find that the statement was copied from the *Delaware State Journal*, the editor of which says:—"we make the following suggestions, verified by our own observation on some few of the valuable varieties which have proved themselves worthy of cultivation in this vicinity." He discusses some seven varieties of grapes adapted to Delaware latitude, and claims that "the *Catawba* does much better in Delaware than in Ohio and New York."—*Eds. Md. Farmer.*

Translated from the French for the Farmer.

The Tomato as a Medicine.

We translate the following from the French not so much to call especial attention to the Medicinal virtues of the tomato as to its excellence as a vegetable, the advantage of canning it as a winter luxury, and also to the raising of an abundance of garden vegetables not only for summer but winter and spring use:

"Dr. Rennett attributes very important medicinal properties to the tomato: according to his statement it is one of the most powerful aperients in existence; in cases where calomel is recommended it is very efficacious, saying nothing about its being less offensive than all the medicines manufactured by the druggists. A chemical extract may be obtained from the tomato which will replace calomel in the treatment of disease. Dr. B. adds that the tomato reacts wonderfully against dyspepsia and indigestion, and that families should use it constantly, cooked or raw according to taste."

STATE FAIRS, 1874.

American Institute New York.....	Sept. 9, Nov. 14
California, Sacramento.....	Sept. 21, 26
Cincinnati Industrial.....	Sept. 2, Oct. 3
Colorado, Denver.....	Sept. 22, 26
Georgia, Atlanta.....	Oct. 19, 24
Illinois, Peoria.....	Sept. 14, 18
Indiana, Indianapolis.....	Sept. 7, Oct. 7
Iowa, Keokuk.....	Sept. 21, 25
Kansas, Leavenworth.....	Sept. 7, 11
Maine, Lewiston.....	Sept. 22, 25
Maine Pomological, Portland.....	Sept. 22, 25
Maryland, Baltimore.....	Oct. 6, 10
Michigan, East Saginaw.....	Sept. 14, 19
Minnesota, St. Paul.....	Sept. 8, 12
Mississippi, Jackson.....	Oct. 26, —
Montana, Helena.....	Sept. 14, 21
Nebraska, Omaha.....	Sept. 29, Oct. 2
New-England, Providence, R. I.....	Sept. 1, 4
New-Hampshire, Manchester.....	Sept. 29, Oct. 2
New-Jersey, Waverly.....	Sept. 14, 19
New York, Rochester.....	Sept. 14, 18
Nova Scotia, Halifax.....	Oct. 5, 10
Ohio, Columbus.....	Sept. 7, 11
Pennsylvania, Easton.....	Sept. 29, Oct. 2
Rhode Island, Providence.....	Sept. 1, 4
St. Louis Association, St. Louis, Mo.....	Oct. 5, 10
Virginia, Richmond.....	Oct. 27, 30
West Virginia, Clarksburg.....	Sept. 22, 24
Wisconsin, Milwaukee.....	Sept. 7, 11

POULTRY SHOWS.

Bucks County, Pa., Doylestown.....	Dec. 8, 11
Central New York, Utica.....	Jan. 6, 13
Connecticut, Hartford.....	Dec. 15, 18
Eastern Pennsylvania, Doylestown.....	Dec. 8, 11
Illinois, Peoria.....	Sept. 14, 19
Iowa, Dubuque.....	Dec. 15, 18
Lehigh Valley, Pa.....	Jan. 5, 8
Maine, Portland.....	Jan. 12, 15
Maryland, Baltimore.....	Jan. 5, 8
Massachusetts, Boston.....	Jan. 27, Feb. 4
New England, Worcester, Mass.....	Dec. 1, 4
Western New York, Buffalo.....	Feb. 10, 17

County Fairs in Maryland.

MONTGOMERY COUNTY FAIR.—The Twenty-First Annual Exhibition of this Agricultural Society will be held on their ground, Rockville, Md., on Wednesday, Thursday and Friday, September 9th, 10th and 11th, 1874. The Committee promise that this exhibition shall excel others heretofore held, and with that view the list of premiums offered are liberal.

ALLEGANY COUNTY AND WEST VIRGINIA, AND PENNSYLVANIA EXHIBITION.—The Sixth Annual Fair of the Agricultural and Mechanical Society of Allegany county and West Virginia, and Pennsylvania, will be held at Cumberland, on October 20th, 21st, 22d and 23d, 1874.

HARFORD COUNTY SOCIETY.—This new county organization is making preparations for holding a Fair sometime during this month, or early in October. The grounds are already completed.

CARROLL COUNTY AGRICULTURAL FAIR is announced to come off at Westminster, on September 29th to October 2d. Carroll always holds attractive Fairs. We have not received the list of premiums, &c.

Frederick and Washington county Fairs will be held sometime in October.

Utilizing Night Soil.

A correspondent in the *Live Stock Journal* asks the following question, and gets the following reply:—"After all that is known of night soil—even superior to guano, yet very little use is made of it. It is a sin that such a great waste should be suffered. Can you not do something towards preventing such a loss by instructing farmers in the simplest way of preparing and using it?" Our correspondent does not over estimate its value, and its preparation and use are not difficult. The simplest method of preparation is to keep it deodorized, by sifting over it dry earth every week. This will prevent all odor and render it fit for use at any time.—Muck or dry leaf mould is the best, and should be put under cover when dry, and thus kept ready for such use. Dry pulverized clay will be found excellent for the purpose, road dust is good, and, being fine when gathered, will require no preparation before use. A thin layer of this muck, leaf mould, dry earth or road dust will render it less offensive to handle than ordinary farm yard manure. When night-soil has not been thus prepared or deodorized, from time to time, and there is a considerable accumulation, it can still be mixed with muck or dry earth, and allowed to stand for a few weeks before using. It is estimated that the exertions from one adult person, for a year are sufficient to fertilize an acre for a heavy crop of grain or grass. What a wonderful saving to the nation, increasing the fertility of at least 20,000,000 of acres per year, equal to the production of more than 100,000,000 bushels of wheat.

MARYLAND STATE GRANGE.

A special convention of the Maryland State Grange Patrons of Husbandry assembled on the 11th of August in Baltimore. Nearly all the masters and delegates of sub-granges of the State were present. The membership of the granges and sub-granges has increased rapidly since the meeting last January and now numbers 6,000 in the State, with 150 sub-granges. The counsels of the grange are harmonious and many practical questions for the farmer are brought before it for deliberation. The Worthy Master, J. T. Moore, of Montgomery county, presided over the body, with E. B. Hall, of Anne Arundel, as secretary. The worthy master read his report representing the order to be in a flourishing condition, and containing valuable suggestions, which were referred to the proper committees.

Granges from Delaware were admitted into the Maryland State Grange, the Delaware State Grange being admitted by a rising vote and a hearty welcome extended them.

FRUIT DRYING.

Dried fruit of a good quality seldom fails to command remunerative prices in cosmopolitan markets, as it bears exportation well, while large quantities are used for home consumption. The Secretary of the California Agricultural Society, recently read a valuable paper upon the failure of sun-dried fruits, both for exportation and home consumption, from which we extract a few excellent and sensible hints for those of our readers who have a surplus of fruit, of which they cannot dispose in its natural state. Owing to the climatic peculiarity of North America, sun-dried fruit is, in nine cases out of ten a failure, even in the dry sunny atmosphere of California, a fact to which all practical persons will bear witness who have made fruit-drying a business.

Whenever fruit is dried in the sun, it is exposed to insects, which deposit more or less eggs upon it. If the climate be cold as in the Atlantic States, the cold weather sets in so early that these eggs are not hatched out in Autumn, and the fruit is usually consumed before the following spring, the consumers ignorant of the fact of having eaten with it millions of insect eggs, which become animated with life as soon as the warm weather approaches if any fruit remains. In California and in all semi-tropical latitudes, these eggs hatch out before the approach of Autumn, and often destroy the fruit before it is required for consumption, and always injure it. Much sun-dried fruit which has been shipped to foreign ports has been ruined before reaching its destination, and when sold nearer home has been returned to the farmer. Therefore, even dried fruit is the most reliable, cleanly and wholesome and healthy; economy and policy all require that the old method of drying fruit be abandoned, unless it can be subjected to some process by which the insect may be destroyed. Fruit dried by artificial means, if carefully watched, is always more wholesome and palatable, and where it is designed to thus prepare it for the home or foreign markets, patent ovens for the purpose should be used, which may be so arranged as to prevent burning, and which will cause the juices of the fruit to dry rapidly, and thereby impart a finer and more natural flavor, since the process of drying is quickly accomplished.—*American Farm Journal*.

JERSEY CATTLE FOR SALE.—We call attention to the announcement of the public sale of pure bred Jersey Cattle, the property of J. H. McHenry, Esq., of Baltimore county, Md. The sale will take place Herkness' Bazaar, Philadelphia, on Thursday, September 24th, 1874—This is a fine opportunity for those in want of this breed,

MARYLAND HORTICULTURAL SOCIETY.

AUGUST MEETING.

The August meeting of this popular Society was held on the evening of August 17th, at Lehmann's Hall, and was well attended by members and visitors, and a good deal of enthusiasm was manifested on the occasion, giving evidence that the deep interest felt in its success has not at all abated.—Ezra Whitman, president, in the chair—T. C. Dorsey, Secretary.

Letters were read, regretting their inability to attend and address the meeting, from Hon. John A. J. Creswell and Harry C. Hallowell.

Mr. John Feast, from the Hall Committee, reported favorably on exhibiting on the lower floor of Lehmann's Hall, believing it would afford ample accommodation for the first annual display.

The Secretary reported the following gentlemen who had become members since the last meeting: Hon. J. Carroll Walsh, W. H. Oler, A. S. Abell, George C. Maund, W. H. Wehrhane, Randolph Mordecai, D. J. Foley, W. B. Wilson, J. A. Richardson, D. Preston Parr, J. B. Dempsey, Hamilton Easter, Jos. Smith, Jr., Pikesville; E. Mann, C. H. Teipel and Thomas Henderson.

Wm. H. Perot, Esq., returned the following named gentlemen, in addition to others already reported, as members: A. P. Woods, J. Stricker Jenkins, R. A. Fisher, C. Morton Stewart, Frank Frick, Mrs. Lurman, Hiram Woods, John L. Weeks and J. H. Barker.

The editors of twenty-four county papers were elected for gratuitously advertising the Annual Exhibition, to whom certificates of membership were issued.

Mr. Whitman, president, made a statement from which it appeared that though not a year old the Society had nearly two hundred members, among them the leading florists and horticulturists of the city. The work was, however, just begun, and the co-operation of men and women was solicited.—Its objects would enhance the value of property, and the comfort of living. It was specially desirable, that women and young persons should devote themselves to horticultural pursuits, which cultivated taste, fostered refinement, and was of great advantage.

The report of the Treasurer was presented showing that the receipts have been sufficient to meet all expenses. The donations since the last meeting have been as follows: Ten gentlemen have each subscribed fifty dollars. These are: W. H. Graham, Hamilton Easter, E. Whitman & Sons, R. W. L. Rasin & Co., W. T. Walters, C. J. Baker, Enoch Pratt, A. Hoen, Henry James, and A. S. Abell.

Chas. Reese, Esq., being called to address the meeting, read a paper upon the importance of fostering a taste for cottage architecture and arboriculture, by offering premiums for the loveliest cottages, and for the planting of trees along the road sides. The neglect of suburban beauty when there is so much wealth and acknowledged taste in our city, is singular, and will have to be abandoned if Baltimore is to become a great city and desirable residence. He concluded by offering a resolution that the Executive Committee take into consideration the propriety of offering premiums for the most

tasteful suburban cottages. This resolution was passed by a unanimous vote.

There were several hundred beautiful bouquets exhibited on the occasion, which were greatly admired, especially by the ladies, a number of whom entered the hall while the meeting was in session. The following were among the exhibitors of bouquets: W. Fowler at Mr. Hopkins; O. Kemp, Lauraville, Baltimore county; W. McKenzie, Waverly; J. H. White, Waverly; J. Ed. Feast, city; D. Thurley, at Mr. Baker's, Catonsville; J. Lehr, at Mr. James, Catonsville; R. J. Halliday, city; E. Whitman, city; A. L. Black, city; R. W. L. Rasin, city.

Prof. N. B. Worthington, of the Maryland Agricultural Society, being introduced, read a very interesting paper. It opened with a high compliment to Mr. Whitman, for his beautiful garden, and then proceeded to consider the importance of the garden as a source of beauty and utility, and the result of widespread efforts to foster correct taste. The necessity of such culture as will prevent horticulture from degenerating into a mere money making toil was also discussed, and some touching reference was made to the pleasant memories of the joys derived from gardens in boyhood's hours. In conclusion, the importance of the great work in which they were all engaged, was strongly presented.

Dr. E. M. Pendleton, Professor of Agriculture in the Georgia college, was introduced. He said he was glad to see that the Society was devoting attention to flowers, and he had no doubt they also paid attention to fruits. He presumed that persons made money in this section from such culture. In Athens, Georgia, where he lived, he never knew of flowers or plants being sold. Ladies who got rare plants exchanged them for others. There was very little market for fruits in Athens. It was a rural community. Almost every farmer had an orchard, not very highly cultivated, but some very good, especially peaches. Before he left home a farmer was unable to sell a wagon load of peaches at 25 cents a bushel. Market gardening did not pay in Georgia, as land was plenty. Most of the horticulture in Georgia was by amateurs. As Professor of Agriculture he found that the culture of cotton interested the people of Georgia more than anything else. It was the only thing that brought money. Corn would not pay in Georgia. A man who would cultivate corn and not cotton would be bankrupt in a year. The people were all in debt, and grew corn to get out of their financial embarrassments. The land had been so worn that it would only make six bushels of wheat or ten of corn per acre. Four times more money can be made from land by growing cotton than by growing corn, but he hoped yet to see a more diversified agriculture in Georgia. If less cotton was grown the price would be higher.

During the meeting, the following persons came forward and were enrolled as members: W. McKenzie, Ernest Main, Obediah Kemp, John Summerfield, H. P. Underhill, Dr. G. T. Child, J. H. O'Brian, Mrs. Augusta Needley, Benjamin F. Grover.

Dr. Latimer called up the proposition to advance the scientific character of the Society by reference of subjects of scientific inquiry to particular classes. After discussion, a resolution was passed, that the

Executive Committee should report on this subject at the next meeting of the Society, after the annual exhibition.

Mr. J. D. Oakford announced that to further the welfare of the Society, he proposed to offer a special premium of \$25 for the best exhibition of fruits.

Mr. Mark C. Taylor and J. H. White, made some suggestions in relation to the time of holding the annual exhibitions—after which Mr. Jesse Marden, Jr., was introduced, and read an excellent paper on horticulture, giving a view of the advantages derived by it from science and close observation, which we may publish in our next.

Mr. Marden exhibited a splendid basket of Flemish Beauty pears.

Mr. J. D. Oakford exhibited a basket of fine tomatoes.

After the transaction of other unimportant business, the Society adjourned.

A New Bridle Bit.

In speaking of the improvements of the age the *Turf, Field and Farm* says:

WHAT NEXT.—We were shown, last week, one of the most unique improvements of the day. It is safe to say that no such thing has yet been brought before the public. This simple contrivance is a bit to use on a trotting horse, so neatly arranged that the driver can give his horse liquid nourishment at any time during a heat without trouble or changing his position, except to take the lines in the left hand. Stimulant spirits or water can be conveyed into the horse's mouth, thereby giving him new courage and vigor to finish a hard fought heat in better condition. If this bit proves a success it may save at times perhaps the life of a horse. The inventor of this splendid bit is the practical horseman, Mr. W. H. Wilson, of Cynthia, Ky.

The same valuable paper gives a statement of the high prices that horses have brought as racers and trotters since the Racing and Trotting Clubs have been established and encouraged by the best people, both male and female. It being in full accord with what we have written often, and of which we are more convinced every day, that it is greatly to the interest of our farmers to raise colts, not after the plan of old times, but as the successful breeders of horses do, which is, to breed from full bred mares and horses of undoubted pedigree which have an honest record, so that no deception can be practiced; take great care of each colt and pet it, at the same time educate it, as it progresses in age and size, so as to have the colt always gentle, docile, when the chances are that a high price would be obtained for it; we insert in corroboration of our views a short extract from the article alluded to, as follows:

A great deal has already been achieved in the improvement of the horse stock of the country, and the progress made within the past ten years has been truly wonderful. The sports of the turf have

had a great deal to do with this improvement, and we pride ourselves on the fact that our humble efforts have tended in a measure to elevate and give a wholesome tone to this delightful pastime. Indifferent to the sneers of the envious, and unawed by the machinations of the evil disposed, we shall always endeavor to uphold the purity and dignity of the turf, and at the same time condemn all underhanded scheming.

To give some idea of the vast improvement above indicated, we append the following table of prices attached promiscuously:

Kentucky sold for \$40,000; Norfolk, \$15,001; Lexington, \$15,000; Kingfisher, \$15,000; Glenelg, \$10,000; Extra, \$10,000; Smuggler, \$35,000; Dexter, \$33,000; Lady Thorn, \$30,000; Blackwood, \$30,000; Jay Gould, \$30,000; Jim Irving, \$30,000; Goldsmith Maid, \$20,000; Startle, \$20,000; Lulu, \$20,000; Happy Medium, \$25,000; Clara G., \$20,000; Pocahontas, \$35,000; Judge Fullerton, \$20,000; Auburn horse, \$13,000; Edward Everett, \$20,000; Mambrino Bertie, \$10,000; Socrates, \$20,000; George Palmer, \$15,000; Mambrino Pilot, \$12,000; George B. Daniels, \$8,000; S. G. Brown, \$12,000. Flora Temple sold, when aged, for \$8,000, for brood mare; Prospero, \$20,000; Rosalind, \$20,000.

\$25,000 was offered and refused for Tom Bowling last Summer; \$30,000 was offered and refused for Harry Bassett in his three-year old form. \$25,000 will not to-day buy Baywood or Asteroid. \$40,000 was offered and refused for Woolford Mambrino, and \$20,000 for Thorndale.

FAST TROTTING.

At the Buffalo, N. Y. races, August 7, the famous horse "Goldsmith Maid" trotted the mile in 2m. 15½s. After the race, the Maid was stripped and led in front of the judges' stand, when the immense crowd arose and greeted her with deafening cheers. Her driver, Budd Doble, was ordered on the judges' stand, where he received a becoming ovation. In 1867, the racer "Ethan Allen" trotted a mile in 2m. 15s. But both these performances were surpassed by one of "Goldsmith Maid's" three one mile heats at Rochester, N. Y., on August 12, which was trotted in 2m. 14½s.

Running horses make much quicker time than trotters. In 1850, the English horse "Black Doctor" is reported to have run the mile in 1m. 40s.

NATIONAL SPORTSMEN'S ASSOCIATION.—A National Convention, having for its object the procurement of intelligent and efficient legislation for the protection of game Birds and Fish, will meet on the 9th of September, 1874, at Niagara Falls, New York. All State Sportsmen Associations, Local Organizations, and gentlemen sportsmen are requested to send delegates to said convention, to take such action as may to them seem advisable. Address, A. C. Mattoon, chairman New York State Committee, Oswego, New York,

FALLING LEAVES.

Many persons think that when the leaves turn red and yellow in the fall it is because they have been killed by the frost. But a little observation will show that such is not the case, and that the autumns when the leaves are most beautiful, are those in which the frost is the latest.

A severe frost kills the leaves at once, and they soon fall, brown and withered. To be brilliant they must ripen naturally, and our hot September and October midday suns have probably much to do with it, as in England, where the falls are apt to be damp and cloudy, the leaves are not so bright, and American artists, who strive to paint our maples and dogwoods as they see them, are unjustly accused of over-coloring.

The leaves fall because they are ripe, and have performed the service that was allotted them. The leaf is the laboratory of the plant, and in it are performed most of the operations essential to its growth. It takes the crude materials gathered by the roots, refines them, rejecting all that is not essential to the plant, and out of the remainder constructs the highly complex bodies that are found in other parts of the plant. These rejected parts consist mainly of earthy matter that was in solution in the water taken up by the roots, and it is deposited in the cells of the leaf. This is shown by the fact that the leaf contains far more ash than any other part of the plant. In some plants the ash of the leaf amounts to over 20 per cent., while that of the wood rarely exceeds two or three. When the cells become completely clogged up with this matter, the leaf can no longer perform its functions, and so ripens and falls off. Provision has already been made for this separation. If the foot-stalks of most leaves be examined, it will be found that a kind of joint exists near the body of the plant, even when the leaf is quite young; as it grows older this joint becomes more marked, and finally when it is ripe a gentle breeze will shake it off, and no wound is left, nothing but the scar; the wound has healed even before it was made. The same is also true of fruits, which by botanists are regarded as nothing but developed leaves; a joint may generally be found in the stem, at which it separates readily. This is very marked in the grape; it is situated at a little swelling that is to be found on the stem. A slight bend will separate the stem at this point, while it takes a strong pull to sever it above or below. Even on the evergreen trees, which apparently never shed their leaves, the leaves exist at the most but two or three years, when they are replaced by new ones, the old falling away as they become unfit for active duty; but the leaves in this case being shed mostly in the spring, we do not miss them,—*Cor., Journal of Chemistry.*

Destroying Weeds.

J. B. Davis, in the *Country Gentleman*, says:—Every farmer should study the habits of weeds, so as to be able to subdue them with the least outlay of labor; this is almost as necessary as to know the habits of the crops we cultivate. Different kinds of weeds require different treatment; what will kill one, only serves to spread another. For instance, quack grass can be destroyed comparatively easy early in the season, but if left till after the creeping roots have increased in size and strength, partial cutting up only makes a new plant for every piece of root thus cut and left, increasing their number a hundred fold. Therefore, if the farmer would work understandingly, he will be all the better able to stop the growth of all weeds if he is conversant with the peculiar habits of those kinds with which he has to contend. Never allow a weed to throw up a flower stalk; if you attend to this you will soon have clean fields. I know it is a constant struggle for the mastery, but it is the fulfilment of the sentence of banishment from Eden, "By the sweat of thy brow shalt thou earn thy bread." Still if we persevere and faint not, we shall reap our reward in good crops.

STRAWBERRIES may be planted out this and next month provided advantage is taken of a rainy day or wet spell. We have known almost a full crop the following season to result from early fall planting. Good thrifty growth should be promoted during the growing season and a slight protection of short manure spread over the bed previous to the setting in of winter. The ground should be dug deep for strawberries. They are very little trouble or expense.

NEW ADVERTISEMENTS.

Geo. Dugdale & Co—Excellenza Fertilizer.
Navassa Phosphate Co—Phosphate.
John Bullock & Son—Pure Bone.
Ellwanger & Barry—Trees, etc.
R. G. Hanford—Pear Trees.
W. Parry—Pomona Nursery.
A. Hance & Son—Nurserymen & Florists.
T. K. Robson—Antalgic Liniment.
Jas. Vick—Vick's Catalogue.
Lister Bros—Phosphates, &c.
H. G. Eastman—Eastman Business College.
Francis Morris—Pure bred Stock.
Klinefelter Bros—Maryland Bag Factory.
F. J. Kinney—Brown Leghorn Fowls, &c.
J. Howard McHenry—Auction sale of Jersey Cattle.
S. W. Ficklin—Belmont Stock Farm.
Franklin Davis & Co—Richmond Nurseries.
J. J. Turner & Co—To Wheat Growers
do Bone Flour & Bone Dust.
Hoopes Bro & Thomas—each Trees.
Andrew Coe—Coe's Super Phosphate of Lime.
E. F. Peirce—Ercildoum Nurseries.
T. K. Phoenix—Nursery & Bulb Catalogue.
Lamb Knitting Mach. Co—Lamb Knitting Machine.
P. T. George & Co—Agricultural Salt.

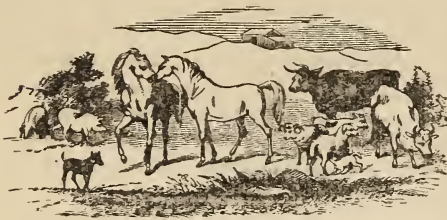
TOBACCO CULTURE.

Cultivation of Tobacco in the United States.

The cultivation of Tobacco in this country is one of the most important of her agricultural interests. Ever since the first cultivation of the plant by the English colony, who settled Virginia in 1607, it has continued to attract the attention of all growers of the weed, as new vains have been tried, and new methods of culture introduced. The company of "Adventurers and Planters of the cities of London and Plymouth" who settled in Jamestown, Va., became from the first deeply interested in a plant cultivated by the Indians, and called by them "Reponoc." They at once began to cultivate, and as early as 1616 succeeded in curing a "good store of tobacco." From that time forward, until 1620 its culture gradually increased, until the cultivation of maize or Indian corn became greatly neglected. The extraordinary price received for the weed of this period (three shillings per pound) was a sufficient inducement for the colonists to abandon the chief object of their immigration to Virginia for the profit of exorbitant lucre which this commodity held out; and that on this account they so disgracefully submitted to an impolitic dependence upon the Natives for bread, or to put the adventurers to their shifts to support the necessary independence of colonization, and, very justly, to merit their severe reprehension. The Right Honorable the Earl of Southampton and others addressed letters of remonstrance against the excessive planting of tobacco. All such remonstrances however proved futile, and as a last resort its cultivation was made a matter of legislative enactment. In 1639 the product was limited to 1,500,000 pounds, and to 1,200,000 pounds, in the two years next ensuing. Their restrictions no doubt tended to the production of a fine quality, but failed to be lasting on account of the dissatisfaction arising among the planters of the weed. The tobacco produced in the colonies at this time has extended to England, and from thence to all parts of Europe. The amount annually exported gradually increased until 1758 when Virginia exported 70,000 hogsheads, which was the greatest quantity of tobacco ever produced in the colony in one year. Some accounts of the exports of Virginia and Maryland at this period give 80,000 hogsheads, on their usual yearly gathering; the profit of this at thirty shillings a hoghead amounts to £120,000. From 58,000 to 60,000 hogsheads was the usual quantity of tobacco obtained from this source alone till 1790. For more than two centuries Virginia,

Maryland, and several others of the Southern States were the only States that engaged in its culture. About 1835 the plant attracted considerable attention in New England which seemed to develop and attain a vigorous growth. It seemed however, better adapted for wrapping purposes than for cut tobacco. A few years later it was introduced in Ohio and other Western States; it cured well, both in color and texture and gave promise of some excellence as a cigar wrapper. At the present time tobacco is cultivated in nearly one-half of the States of the Union, producing nearly as many varieties of the plant. In the Southern States the soil seems well adapted for a tobacco suitable for cutting, while New England, the Middle States, and the West produce a leaf tobacco more suitable for a cigar wrapper. Of the New England States enjoyed in its cultivation, Massachusetts and Connecticut produce the most and the finest quality of leaf. The average yield per acre is greater in Connecticut than in any other State, being 1,700 pounds, and the smallest in Georgia, 350 pounds. Kentucky is the largest tobacco growing State, producing in 1871, 142,955 acres of tobacco. The export of American tobacco is simply immense. In 1871 the United States produced the enormous amount of 350,769 acres of tobacco: of this amount, the greater part was exported to Europe, West Indies, and other parts of the world. The value of this loosely estimated is 25,901,421 dollars. The tobacco grown in Connecticut Valley is the finest grown in this country, and brings the highest price; selection of Connecticut seed leaf have sold for 75 cents per pound. A few years since, a variety known as Spanish tobacco was introduced among us, and attracted considerable attention on account of its fine flavor and general excellence of leaf.—Some few of the Connecticut tobacco growers, have entertained the belief that a finer flavored tobacco than Connecticut seed could be grown in the valley, and still retain that unrivalled texture of leaf which give our famous variety of seed leaf its world wide reputation. After repeated experiments with Havana, Spanish, Orinoco, Latakia, and other varieties of the plant, the prevailing opinion seemed to be in favor of Spanish tobacco as best adapted to our climate, and also attaining sufficient size, so desirable in a leaf tobacco designed for a cigar wrapper. But not only in New England is tobacco culture attracting new interest, but in the other States. In Ohio a famous variety of the plant known as white tobacco is attracting much attention, and is beyond all question one of the finest varieties of the plant grown in this country.—*Cor., Tobacco Leaf.*

Live Stock Register.



FEEDING FARM HORSES.

During a discussion on the farm horse at a club in Aberdeenshire, Scotland, the following paper was read by a member :

The feeding of horses is an important point in their management. Many farmers would be great gainers by paying more attention to this matter.—Some servants when they have access to the corn bin, give the horses they have in charge too much corn. Many of them have the erroneous notion that the more corn their horses get, the fatter they must be, and instances are not uncommon where more than six bushels a week are given to a single pair. Too much corn indisposes horses for eating other provender, and occasionally subjects them to serious disease. Four bushels of good, sound oats weekly, along with a few Swedish turnips or other roots, and plenty of good straw, will keep a pair of healthy farm horses in good order through the winter, even though they be pretty hard wrought. If then such an allowance be sufficient for a pair, it is folly and waste to give them more. Hay may have to be substituted for straw, but no more corn will be necessary to sustain them, even when they have to go "their ten hours" in the busy spring season.—If sound and healthy horses that are doing only fair work, do not keep in good condition with these supplies, the master may enquire whether the carelessness of the groom be not to blame for it. Servants that carefully feed their horses would be a gain to many masters, even though they paid them £1 a half year of extra wages. Some horses are nice feeders, and need to be coaxed to eat. A careful horseman will keep his eyes on such, and will, by giving small and oft-repeated handfuls, constrain them to eat enough to keep themselves in good order ; whereas a careless one, by inattention, would soon let them be run down to skin and bone. Horses that are greedy feeders, or that swallow their corn whole, should have it bruised or ground. A little chaff mixed with corn helps to make horses chew it—and well-chewed is of far more importance than many think. Unless it be well-ground and mixed with saliva in their mouths, it is but imperfectly digested in their stomachs, and without perfect digestion there, its full benefit is not obtained. A full drink of water immediately after being fed should never be allowed to horses.—When water is drank by them the bulk of it goes directly to their large intestines, and little of it is retained in their stomachs. In passing through them, however, the water carries considerable quantities of their contents where it lodges in the intes-

tines. If, then the contents of horses' stomachs are washed out of them before they are digested, they are in a manner lost, no nourishment being derived from them. Colics in horses frequently arise from this cause, and to it the appearance of corn entire among the dung is often due.

The articles of food, as well as the quantity they get, are also matters which demand consideration in the management of horses. Bere and barley are often given to them with profit instead of corn, and their relative value as articles of food, stand in about the same proportion as their specific weights do.—Damp straw or musty hay should never be given as food for horses. The former is apt to scour them, and the latter frequently affects their wind. It is affirmed by some that if their hay and straw be cut, and their corn bruised, horses can be kept at one-fourth less cost than when these are given them whole. Everyone knows the value of grass as an article of food for horses. A month of it in the early part of the season, when it is young and tender, is worth two when it gets old and tough.—Great care must be taken of horses when first put on grass—indeed, changes of food of any kind, must to them be introduced with caution, as many have had to pay dearly for neglect of this. Even a change of water has at times been known to effect some horses, so very sensible does their alimentary truck seem to be. A shallow watering place in a running stream should never be allowed for horses while at grass. Fatal results have often been induced from their drinking sand along with water from such a place.

Cotswold or Merino.

The *Live Stock Journal* replies to the query—"Is it a save cross, the Cotswold on the Merino ; would it not be better to cross the Merino on the Cotswold"—as follows:—In theory, it has been held that a large male should not be crossed upon a small female, and therefore that a Cotswold ram upon a Merino ewe would be too violent a cross ; but experiment has shown this incorrect. There appears to be, practically, no objection to this cross, as it has been quite successful in establishing several profitable flocks. The lambs are found to be sought after by the butchers, and bring almost the price of Cotswolds, and the wool is such a happy medium between the fine and the long, as to answer the purpose of both. This cross, however, should only be made upon two or three-years-old ewes. They fatten readily, and, at the proper age, are as profitable to feed as pure Cotswolds.

ONE FLEECE.—A correspondent of the Department of Agriculture says he is satisfied from experiment that one fleece, annually shorn in the spring, will weigh more than both the fall and spring fleeces from the same sheep.

Lunar caustic, carefully applied so as not to touch the skin, will destroy warts,

Open Farm Yards and Lung Disease.

Whether or not covered yards are considered applicable in our country, the reader will find some useful hints in the following, from the well known agriculturist, Mr. Mechi, of London :

"I have a very strong conviction that open yards are the frequent cause of lung disease. Being exposed to the rainfall, large quantities of straw are thrown down to absorb the water and make a dry bed for the cattle ; but I observe that when the bullock gets up a small cloud of steam arises from the spot he has left, and that also steam comes from the under part of his body. This proves that his weight has caused the water to rise up under him through the straw, and that he has been lying on a heated, wet bed, instead of a dry one. I know of many cases of pleuro from open farm yards, but I do not hear of any in covered and enclosed yards ; for there, if scantily and properly littered, the urine and excretion are trodden into a solid paste, and there is no heat, fermentation, or smell. It is the rain water that in the open yards causes the mischief. All the years I have had my animals in covered and enclosed yards there has been no lung disease, but the covered yards should have paved and cemented floors, or the urine would soak into the soil, and the manure be liable to heat. There is no drainage from a covered yard, all being absorbed by the litter, and the whole forming a homogeneous mass fit to go at once to the land, without making a dung heap. Of course, there must be proper ventilation. The advantages are health and cleanliness of animals, more progression, with a smaller consumption of food and less waste of straw, and a considerable economy of horse and manual labor. The trifling increase of expense in building is much more than covered by the numerous advantages. We know that pigs get lung disease (heaves) by lying on wet and heated manure, and my belief is that cattle are often similarly injured. If the yards are not cleared before April and May, fermentation takes place, and animals then are liable to disease. The salt urine (without water) does not injure animals lying on the straw saturated with it. My sheds are ventilated on Watson's principle, the opening in the roof being divided by a deep dependent board. I have observed that in covered yards cattle are cleaner and less bedaubed or besmeared than in the open farm yards. On our system of close folding sheep with iron hurdles on wheels, which are removed every twelve hours, there is no fouling of the land or tainting of the food, which takes place to a considerable extent where sheep roam over their food."

USEFUL RECIPES.

SCRATCHIES.—The *Country Gentleman* says:—Our personal experience has been that thorough cleaning of the skin on the horse's legs will cure this disease. Washing well once a day with castile soap and warm water, and when the hair gets dry ; rubbing in raw linseed oil—this to be daily repeated—has never yet failed with us to effect a cure. Stonehenge recommends glycerine instead of the oil. Dr. McClure recommends instead of either, carbolic acid one part and water forty parts, to be applied two or three times daily.

TO CURE HEAVES IN HORSES.—Dr. McClure in his *Diseases of the American Horse, Cattle and Sheep*, in curing heaves says, "the treatment, whatever that may be to do good permanently, must be by a gradual and progressive improvement. Five grain doses of arsenic given once in twenty-four hours for two weeks ; then after a weeks intermission, commencing as before, will cure many cases. Give the animal feed in small bulk, use as little hay or rough feed in large bulk as possible. Improve the condition of the horse by every way or means and you will give relief."

REMEDY FOR FOOT ROT.—An Australian correspondent of *Bell's Messenger* gives that paper the following recipe for curing foot rot:

Make a solution of arsenic, 2 oz. to the gallon of water. (The mineral will dissolve quicker if the water is boiled, with the addition of a little soda.) Put this solution in a suitable trough and run the sheep slowly through the liquor once a week for two weeks.—Then examine the feet, and if any remain not cured, pare away the separated portions of the hoof, so that the liquor will reach all parts diseased ; then run them through once more.

TO EXTERMINATE LICE.—A correspondent of the *Country Gentleman* says:—Take a quart of strong vinegar and mix it well with plenty of Scotch snuff ; steep them together until the strength of the snuff is well out ; then wash the animal well, while the vinegar is warm, on these parts where the lice congregate. It is sure to kill all it touches. Repeat it if the nits hatch and make a new crop. Neither snuff nor currycomb will sicken or harm.

GARGET.—L. F. C., in *Country Gentleman* says:—A January copy contains a number of treatments for the above disease, some of which I suppose are very good ; but some of them recommend greasing. Do not do it if you do not want to dry the milk. My treatment would be a pint of beans, soaked so as to soften them, once a day for three days in succession. This is a sure cure.

WEN ON CATTLE.—Mix equal quantities of spirits of turpentine and sulphuric acid, stirring slowly in a tumbler—afterwards bottle the mixture. Rub grease round the base of the wen and then apply the medicine to the wen with a leather once or twice a day ; it will gradually eat them off.

STRETCHES IN SHEEP.—John R. Chapman, Madison Co., N. Y., says the best remedy he knows is a pint of warm lard. Stretches he says, are produced from eating old, dry hay or a want of drinking water or both combined.

REMEDY FOR CAKED UDDER.—Bathe the udder with Linseed oil once a day, and the inflammation will soon be subdued.

The Poultry House.

For the Maryland Farmer:

CHICKEN CHOLERA.

One of our staff, the Joodge, having a reputation as a poultry man was applied to at his farm by a neighbor across the country several miles who had carried out dead fowls by the bushel from his hen house, for a remedy for chicken cholera: the Joodge is running a couple of yards and with the disease *blue* around him has not yet lost a bird. His prescription was as follows:

1. Clean out the hen house immediately two or three inches below the dirt and sprinkle fresh dirt from the garden, field or road on the floor, well mixed with plaster.
2. Thoroughly whitewash the house inside and out, roosts, nests, &c.
3. Put the carbolic acid, I send (a pint Calvert's No. 5.) into 2 gallons water, and use 1 gallon for the whitewash for the inside of the house.
4. Occasionally—every other day—sprinkle a pint of the acid and water all over the inside of the house, roosts, nests, &c.
5. Put fresh plaster and dirt plentifully under the fowls every night.
6. Divide the medicine I send (tinct. opii, capsici, rhei. co. menth pip, campho, about 2 oz. in all equal parts each) into 4 or five doses, and mix a dose with a quart of scalded wheat bran or middlings every morning for a feed, and give to the fowls on a clean grassy spot, if possible.
7. Sprinkle fresh lime plentifully around the house and on the spots usually traveled by the fowls, but not inside the house, as it will injure the manure.

Fattening Chickens.

The *Journal of Chemistry* gives the following directions for fattening chickens. Is it necessary to confine them to oats—would not feeding something else at times, be productive of good?

"It is hopeless to attempt to fatten chickens while they are at liberty. They must be put up in a proper coop; and this, like most other poultry appurtenances, need not be expensive. To fatten twelve fowls, a coop may be three feet long, eighteen inches high, and eighteen inches deep, made entirely of bars. No part solid—neither top, sides, nor bottom. Discretion must be used, according to the size of the chickens put up. They do not want room; indeed, the closer they are the better, provided they can all stand up at the same time. Care must be taken to put up such as have been accustomed to be together, or they will fight. If one is quarrelsome, it is better to remove it at once, as, like other bad examples, it soon finds imitators. A diseased chicken should not be put up.

The food should be ground oats, and may either be put up in a trough, or on a flat board running

along the front of the coop. It may be mixed with water or milk—the latter is the better. It should be well soaked, forming a pulp as loose as can be, provided it does not run off the board. They must be well fed three or four times a day—the first time as soon after daybreak as may be possible or convenient, and then at intervals of four hours. Each meal should be as much and no more than they can eat up clean. When they have done feeding, the board should be wiped, and some gravel may be spread. It causes them to feed and thrive."

After a fortnight of this treatment, you will have good fat fowls. If, however, there are but five or six to be fatted, they must not have as much room as though there were twelve. Nothing is easier than to allow them the proper space, as it is only necessary to have two or three pieces of wood to pass between the bars and form a partition. This may also serve when fowls are up at different degrees of fatness. This requires attention, or fowls will not keep fat and healthy.

As soon as the fowl is sufficiently fatted, it must be killed; otherwise it will not get fatter, but will lose flesh. If fowls are intended for the market, of course they are or may be all fatted at once; but if for home consumption, it is better to put them at such intervals as will suit the time when they will be required for the table.

When the time arrives for killing, whether they are meant for market or otherwise, they should be fatted without food or water for twelve or fifteen hours. This enables them to keep for some time after being killed, even in hot weather."

Raising Turkeys.

A farmer's wife, in the *Rural World*, gives her practice with turkeys:

Have no more than four hens to each gobbler, and do not starve them during winter. Watch them closely about laying time, as they nearly always hunt a nest the day before they deposit their first egg. Make a good large nest in some building that you can confine them in, and the next morning after they hunt their nest, catch them and shut them up in the place where you made the nest, for after they have laid one egg there they will always go back to that nest. If they choose a good place of their own accord, I let them alone; though I put a few common hen eggs in the nest and take out the turkey eggs every day and keep them in a cool place, as heat injures them quicker than cold, provided it does not freeze. I let each turkey set the first time she wants to; but let no young turkeys run with a common hen, for if they do so half a dozen times, they are more trouble than fifty running with a turkey hen.

The advantage of letting turkeys set on their first laying of eggs is this: the young turkeys are hatched before the weeds and grass get high enough to wet and befoul them in the mornings. I watch them two or three days, that no weak ones are lost; then they get no more attention, only feeding when they come to the house. On no account give them raw food when small—I feed mine on corn bread; sometimes soak it in sour milk and sometimes give them curd. Never shut them up unless it rains hard. To prevent cholera, I give them sulphur twice a week.

THE APIARY.

Ants and Other Vermin.

Ants will frequently get into the chamber of the hive if not properly constructed, and whenever disturbed are very annoying to both the bees and the keeper. To banish them from the hive, start them out with smoke, and brush a little spirits of turpentine where they "most do congregate," and should they have a hillock near, treat it a few times to warm soapsuds, and the ants will bid you a long adieu. If spirits of turpentine be not at hand, the leaves of catnip, tansy, or black walnut, placed in their "retreats," will usually drive them away.—The large mother wasps appear singly early in the spring to start their nests, and each, if not prevented, is destined to be the parent of a *little swarm*. They often harass the bees, and should have no quarter. At the approach of winter, the mice may seek a nesting place in the warm hive. If there are holes large enough to admit them, they should be contracted or covered with wire-cloth.

How to Keep Bees from Swarming.

Mr. J. W. Hosmer, of Janesville, Minnesota, gives the following simple method of preventing bees from swarming. Take a piece of wire cloth five inches square—cut one inch square out of each corner, bend up the ends making a square wire dish—ravel out the edges one-half inch. Now open the hive you wish to prevent from swarming—find the queen, put her on the center of a card of comb and place the wire dish over her, pressing it into the comb, leaving only room enough for her to crawl around under it. If they should swarm before this is done, you can catch the queen and put her back, with the cage over her, and return the bees, if they do not return themselves. In all cases remove the queen cells from the comb and the bees cannot swarm. When the queen has been caged in this way for a few days, the swarming fever will cease, and she can be released and all will be quiet again.

Influence of Climate on Honey Production.

H. A. Burch discusses this in the *National Bee Journal*. He thinks the widely different opinions of the different honey plants arise from the difference of climate. White clover, where it grows best, is an excellent honey-producer, but in other places it is quite different; the same is true of buckwheat. Poplar or basswood also have very different estimates. He instances a forest on rolling prairie and another on bottom land. In dry sea-

sons the river bottom trees would furnish a great abundance of honey, in wet seasons very little, while the high ground was best in wet seasons.—That as the country becomes clearer the material for honey becomes less. That a warm, moist climate is best; that Europe has suffered from loss of forests, and we ought to plant them for this and other reasons.

A writer suggests to all beekeepers to take notes of all plants that bees frequent. Note the time of commencement of bloom and the duration, also the approximate increase of honey stored during the time such plants are visited by the bees.

HOW TO RAISE MANGEL-WURZELS.

The land, which should be very rich is plowed shallow in the fall. In the spring, from 15 to 25th of April, prepare a part of the ground for seed bed as follows: Make ridges about three feet apart, plowing deeply, and pass, over the rows lengthwise with a "clod crusher," or "float." Sow the seed very thick in drills, on centre of ridge; cover about an inch deep. They will endure quite a frost after "coming up." When up, plow and hoe. The rest of the ground should be frequently cultivated, to keep free from weeds. When the mangels are from 1 to 1½ inches in diameter, and the tops are from 8 to 12 inches long, prepare more ground, and thin, by transplanting from the seed rows, cutting off tops about two inches above crowns. Use a stick about 5 or 6 feet long, sharpened, for a dibble, making the holes 18 to 20 inches apart. Transplant when the ground is wet. The plants *can* be left till 2 inches in diameter. Cultivate with a double shovel plow and hoe. If the seed comes up well and is sown thick, one row will fill from 5 to 8. From 1 to 2 pounds of seed will do for an acre, and cost about 75 cents per pound. They grow about two-thirds top of the ground and often weigh 15 pounds, and are clean and easily pulled. Wring off the tops with your hands before putting in the cellar. I raised last year 600 bushels from one acre, at a cost not exceeding 10 cents per bushel when in cellar. Excellent for cattle, horses and sheep. Have raised them a number of years, and think it pays. Varieties used, long, red and yellow globe.—Moss in *Prairie Farmer*.


PENINSULAR AGRICULTURAL SOCIETY.—The Fall Fair of this Society will be held at Middletown, Delaware, on Wednesday, Thursday and Friday, September 23d, 24th and 25th, 1874. The trotting premiums amount to \$1120—three days trial of speed. Address, J. Thos. Budd, Middletown, New Castle county, Delaware.

GRAPE CULTURE.

GUANO VS. PHYLLOXERA.—It was announced at a recent meeting of the *Academie des Sciences*, that the methods adopted in the department of the Herault for flooding the vineyards with water strongly infiltrated with guano, have proved perfectly successful in destroying the Phylloxera, and arresting all traces of disease produced by its presence. It is reported that by the use of these guano floodings the most severely attacked plants have been restored to a healthy condition in a very short period, and have exhibited their normal vigor and productiveness. Various experiments are at present being tried in the department to ascertain the simplest and most efficacious method of employing the guano; and also to test the practicability of the schemes that have been proposed for destroying the insect by the abstraction of the oxygen from the surrounding medium; but this process, although it may be feasible in theory, is beset with almost insurmountable practical difficulties when it has to be applied to widely extended areas.

BLEEDING OF THE VINE.—John J. Thomas in *Country Gentleman* says:—"A neighbor belonging to one of the learned professions, on seeing us pruning a vine a little later than usual, remonstrated with an air of superior knowledge, "Why, don't you know that you are killing that vine?—it will assuredly bleed to death!" We had occasionally done the same thing for thirty years without detriment. We have lately seen a statement of an experiment (but do not now remember the authority), where the owner of a vineyard of fifty vines, pruned one vine a day for fifty successive days in spring, without discovering any difference in the subsequent growth of each."

BEST TWELVE GRAPES FOR A CITY GARDEN.—In answer to a question, the horticultural editor of the *Rural World* recommends the following:—"Two Concord, 2 Ives, 2 Goethe, 2 Massasoit, 2 Croton, 2 Maxatawny. If the list were increased to 24, he says that he would add 2 Rogers' hybrid No. 2, 2 Wilder, 2 Norton's Virginia, 2 Louisiana, 2 Clinton and 2 Merrimack. This would give a succession from the very earliest to latest keepers. Of course, there are new ones that are better, but not sufficiently tried to warrant a full recommendation."


 We would call attention to the several advertisements offering Fertilizers for sale by manufacturers. The parties offering them are very well known, and the fertilizers have mostly been tested. As this is the season for fertilizers, read them.

GROS GUILLAUME, OR BLACK BARBAROSSA, A KEEPING GRAPE.—This is highly commended by an Englishman as an excellent keeper. Cut and hung up in a garret (a small piece of wood attached) in the beginning of October, its flavor in the middle of January was found excellent and the berries but little shrunk. He thinks it should not be sent to the table early, but kept on the vine, or, if cut, hung up in a dry room for some time, until its flavor is fully developed. It is not very prolific.—*Rural New Yorker*.

GOOD DAIRY.—J. B. S., of Newportville, Bucks county, Pa., asks for the average yield of a good dairy of cows. The best record in our possession is that of the dairy of Amos House, near Chadd's Ford, Delaware county, Pa. The cows numbered thirty, and were selected according to the Guenon test by one who understands it thoroughly. Their monthly yield was as follows: January, 7,131 quarts; February, 7,501 quarts; March, 8,588 qrts. April, 8,937 quarts; May, 9,946 quarts; June, 9,074 quarts; July, 9,184 quarts; August, 7,778 qrts.; September, 7,284 quarts; October, 7,030 quarts; November, 5,910 quarts; December, 6,202—making a total of 88,155 quarts per year. This is certainly a good record, and we have not noticed any which exceed it. Of course the cows had the best of care and plenty of food summer and winter.—*Ex.*

IMPORTANT TO WHEAT GROWERS.—The *Calvert Journal* says sulphate of copper (blue vitriol) is said to be a sure preventive of rust in wheat. The sulphate is pulverized and mixed with the seed wheat at the rate of one pound to a bushel of seed. We are indebted to our friend, Captain Jere Baden, for this information. The Captain says in certain portions of California the wheat crop was, year after year, rendered valueless by rust, but since the general use of the sulphate of copper this disease is unknown.

ADAMS COUNTY AGRICULTURAL FAIR.—The 12th exhibition of this Society will be held at Gettysburg, Pa., on 22d, 23d and 24th of September.—The grounds, buildings, stalls, track, &c., are in thoroughly good condition; and the premium list is liberal. An unusually full and interesting Exhibition is expected. Tournament on Tuesday. County Trots on Wednesday, and Big Trot on Thursday. H. J. Stahle, Gettysburg, Corresponding Secretary.

 Do not fail to attend the First Exhibition of the Maryland Horticultural Society, to be held at Lehmann's Hall, Baltimore, on the 9th, 10th and 11th of this month. Many choice and rare things will be on exhibition.

LADIES DEPARTMENT.

A Chat with the Ladies for September.

BY PATUXENT PLANTER.

"September, strews the woodland o'er
 With many a brilliant color:
 The world is brighter than before,
 Why should our hearts be duller?
 Sorrow and the scarlet leaf;
 Sad thoughts and sunny weather,
 Ah me! the glory and this grief;
 Agree not well together."

The summer travellers are returning to their homes, and joyous greetings are exchanged between those who went away and those who staid at home. It is said, "that absence conquers love," and I suppose many have found it so, or it would never have been an apothem, but I have found that the reverse is true. One hardly ever realizes how much love he cherishes for the dear ones at home when he has them under his sheltering protection and daily witnesses their enjoyment of health and quiet happiness. It is when a daughter marries and leaves the paternal roof, or when they all go on their summer wanderings that the heart yearns after them, and love's anxieties become painfully active, that we know how precious they are to us.

September is the golden fruit-month and presents a wealth of flowers. It is a busy one with the notable and industrious house-keepers who are thoughtful of home comforts for the coming winter. Pickling and preserving fruits and vegetables will engage your time and close attention.

The flower beds and parterres must be well attended to, and insects destroyed. Water the flowers freely this month, and take up all bulbs, whose leaves have turned yellow, that they may be dried in the shade, and prepared to be planted next month.—Mark the different colors and keep separate, if you desire to plant artistically.

Let the dairy have your care and see that the milk-maids or men do not let the cows fall off in their milk, so that you may secure next month your winter's supply of nice butter. October and November are the chief months for butter-packing. If the pastures are bad, as they are likely to be, owing to the drought in August, the cows should be fed at least once a day on vegetables, corn fodder or mil-feed mixed with hay or cut straw.

Let me advise you look with watchfulness to the Poultry yard. It may be seen elsewhere in this Journal, that this is a trying month on fowls. Aid your husbands or fathers in killing the Colorado bug and other vile insects by turning your whole poultry establishment into such crops as are infested with these determined and vigorous enemies to the various crops. It will be a proud satisfaction to you, that your poultry, of various sorts, have helped to save a crop of tomatoes, potatoes, &c.

It will more than pay your drafts on the corn crib and neighboring mills. Be cheerful and feel that you are an important adjunct in helping to fill purse, and at same time contributing to the real comfort and delectation of the whole family.

Have you ever tried Peach bread or cake? I think it far better than apple bread, or Strawberry cake.—Make a sponge, as if for light bread, over night with

milk instead of water. In morning roll out to the thickness of dough for bread an inch thick, like for short cake. Put it in a quick oven, and when done, take up, split it open, spread both sides with butter, the more the better, lay on well ripened peaches, cut in small pieces; heavy coating of sugar and nutmeg; then return the cover. On the cover place more peaches and put in the oven until the pan or dish gets hot, then on the whole pour a nice custard and let all stay until it is of a brownish hue; when, add the whites well beaten with sugar, keep it in the oven long enough to glaze. Good, when hot, but splendid when cold. A better breakfast dish at this season is not to be had than 1 lb. of tomatoes, skinned and hearted, 4 eggs well beaten, 2 ounces of butter, pepper and salt; not overdone. If $\frac{1}{4}$ lb. of bread be added, it will be by many preferred. It is my own recipe and if bad, after trial write me and I will be grateful. If you find these recipes acceptable, write me and I shall be more than grateful. The recipe for peach-cake was given me by a German lady who gave me the first installment of this super-excellent dessert.

If you have an invalid whose appetite is bad, let one of experience tell you how to recruit him. Have a cold milk-punch served him just 15 minutes before breakfast—for breakfast give him a well prepared broiled chicken—a young one, fat, about the size of a squab; a plate of small hominy, and a ripe, perfectly formed, *Trophy* tomato well broiled, with the accompaniments of good butter, pepper and salt. It will raise a man from the dead. Doctors differ, but I have been under this high pressure system lately and find it is admirable! I mention this from no egotism, but that mothers may take warning and not starve their invalid children when nature craves the powerful stimulants of liquor and high seasoned, rich food, to bring the exhausted system rapidly to restoration of the vital powers that are required to sustain life. This was the prescription of an eminent doctor in the District of Columbia, varied by the best chops, and beef steaks, cooked rare and high seasoned, with birds, &c., &c., and for refreshments whiskey, with ice at dinner—under this treatment I have known patients to recruit most rapidly notwithstanding the travelling and praying women of the 19th century, who have made themselves so conspicuous. Ladies I desire you to know that I feel that temperance is good and essential to public virtue and home happiness, but the proper use of ardent spirits is essential to the salvation of life often times, and by a mistaken notion of doctors and female preachers of total abstinence many a great life has been lost.

I beg to remind you of the First Annual Exhibition of the Maryland Horticultural Society to be held in this city on 9th, 10th and 11th days of the present month. Surely every lady, who loves flowers, and horticultural productions, will make an effort to show their interest in the promotion of the cause, by attending on the occasion. It will well repay. From the assurances of many florists, fruit growers and gardeners, private and professional, to exhibit, there is no doubt the exhibition will be large and very attractive, particularly to ladies. It is confidently expected that a large representation of ladies and gentlemen from all the counties of this State, from other States and the District of Columbia will be visitors, and many will be exhibitors.

BALTIMORE MARKETS--Aug. 29.

Prepared for the "Maryland Farmer" by GILLMORE & ROGERS, Produce Commission Merchants, 159 W. Pratt st.

[Unless when otherwise specified the prices are wholesale.]

ASHES.—Moderate demand \$6 50@6.75.
 BEESWAX.—Active at 30@31 cts.
 BROOM CORN.—6½@8½ cts.
 COFFEE.—Demand light—Job lots, gold duty paid, 17@21 cts.
 COTTON.—Active—Good Ordinary 14½ cts; Low Middling 16½ cts; Middling 17½.
 EGGS.—Active—Barrelled 18 cts. Cases 20 cts.
 FERTILIZERS.—No change to note. We quote:
 Peruvian Guano.....\$66 ½ ton of 2000 lbs
 Turner's Excelsior.....55 ½ ton "
 Turner's Ammo. S. Phos.....45 ½ ton "
 E. F. Coe's Ammo. S. Phos.....55 ½ ton "
 Soluble Pacific Guano.....50 ½ ton "
 Rasin & Co., Soluble Sea Island Guano 50 ½ ton "
 Rasin & Co., Ground Bone and Meat....."
 Rasin & Co., Ammonia, Potash and Bone Phosphate of Lime....."
 Flour of Bone.....60 ½ ton "
 John Bullock & Sons Pure G'd Bone..45 ½ ton "
 Whitman's phosphate.....50 ½ ton "
 Bone Dust.....45 ½ ton "
 Horner's Maryland Super Phos.....50 ½ ton "
 Horner's Bone Dust.....45 ½ ton "
 Dissolved Bones.....60 ½ ton "
 Missouri Bone Meal.....47 ½ ton "
 New Jersey Ground Bone.....40 ½ ton "
 Moro Phillips' Super-Phosphate Lime 50 ½ ton "
 "A" Mexican Guano.....30 ½ ton "
 "A" do do.....30 ½ ton "
 Plaster.....\$1.75 ½ bbl.
 FRUITS GREEN.—Pears, eating, 1.75 per bushel, Apples, 1.00@1.50 per bushel, Peaches 2.00@3.50 per bushel.
 FRUITS DRIED.—Good demand—Cherries 23@25 cents, Blackberries 9@10 cts.; Apples sliced 11@12 cts.; Apples quarters, 8@10 cts.
 FLOUR.—Demand fair for export Super \$4.25@4.75; Extra 5.00@5.50; Western Family 5.75@6.50; Choice family 8.75.
 GRAIN.—Wheat—Market active—fair to choice White 1.20@1.23; fair to choice Red, 1.18@1.20; Corn, Southern yellow, 79@80 cts. Oats 55 cents.
 HAY AND STRAW.—Hay, new Timothy \$20@22 per ton; Rye Straw \$11@13; Oat Straw 10@11; Wheat straw \$8@10.
 HIDES.—Green 9@10 cts.; Dry salted 14 cts.; Dry Flint 18 cents.
 PROVISIONS.—Sugar Cured Hams 17 cts.; Bacon Shoulders, \$10½ cts.; Rib Sides, 13 cts.; Clear Rib Sides, 13½ cts.
 POTATOES.—Early Rose 2.50@2.75 per bushel; Yellow Sweets \$3.25@3.50.
 RICE.—Carolina, 8½@9 cts.; Rangoon 7@7½ cts.
 SALT.—Ground Alum per sack \$1.25; Fine, \$2.20@2.25 per sack; Turks Island 35 cts. per bushel.
 WHISKEY.—Western 1.00@1.05 cts. per gallon.

Belmont Stock Farm.

I propose to sell Publicly, late in September, probably half of about Eighty Head of THOROUGH-BRED, PERCHERON NORMAN AND BLACK HAWK STALLIONS, and Mares and Colts of these breeds, and of all ages.

Also about the same number of pure bred SHORT HORN CATTLE of all ages, and being anxious to reduce my stock, will make sacrifices to do so.

Send for Catalogue.

sept

S. W. FICKLIN,
 Near Charlottesville, Va.

Baltimore, Aug. 5, 1874.

To the Farmers of Maryland and Virginia.

REDUCTION IN PRICES.

Having secured during the panic last Fall and Winter, at reduced prices, a full supply of Materials used in the Manufacture of our Fertilizers, viz: Peruvian Guano, Bones, Sulph. Acid and Potash, we are now enabled to give our patrons the benefit of our purchases by reducing the price of our Fertilizers to correspond with present low price of Grain. We have accordingly, this day, reduced the price of "EXCELSIOR" to \$55 per ton, and our Ammoniated Bone Phosphate to \$45 per ton cash, deliveries to be made from our Works in this city.

The high standard maintained, and the uniform quality of our Fertilizers for the past sixteen years, and the personal attention of one of our firm to the entire manufacture, in every detail, is continued, and as an assurance thereof, we subjoin the Analysis of Dr. G. A. Liebig, Chemist of this City, made 14th July, 1874, of samples drawn from our entire stock, nearly 50,000 bags representing our manufacture for 1874.

"EXCELSIOR."

Ammonia,	-	-	-	-	6.40
Soluble Bone Phosphate of Lime,	-	-	-	-	19.84
Undecomposed Bone Phosphate of Lime,	9	2			
Muriate of Potash,	-	-	-	-	4.34

From the above it will be seen, that we have not changed our Formula established in 1858, but still adhere to "what we know to be good."

J. J. Turner & Co's. Ammoniated Superphosphate

Ammonia,	-	-	-	-	3.30
Soluble Bone Phosphate of Lime,	-	-	-	-	20.90
Undecomposed Bone Phosphate of Lime,	12	56			

Our Fertilizers are composed of the most concentrated materials; are richer in Ammonia and Soluble Phosphates than any other offered for sale, and we challenge competition in Quality, Mechanical Condition and Price.

For the liberal patronage extended to us in the past, we return our thanks, and assure our patrons that we will spare no efforts to merit a continuance for the future.

J. J. TURNER & CO.

42 Pratt Street, Baltimore.

PURE BRED

Calves, Sheep, Premium Berkshire & Chester White Pigs, Bred and For Sale by

FRANCIS MORRIS,

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THE LAMB KNITTING MACHINE Co.—Advertise, another column, a reduction in the price of their celebrated Knitting Machine, and its points of superiority over other machines.